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THE MIDNIGHT SUN_NEAR HAMMERFEST.

M.d H. Hanhart, Chromo Lith.

Published by Smith. Elder & C° 65. Cornhill London 1859.

THROUGH NORWAY

WITH A KNAPSACK.

BY W. MATTIEU WILLIAMS.

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CARVED WOODEN HUT IN THE TELLEMARK.

WITH SIX TINTED VIEWS AND MAP.

AAg

LONDON:
SMITH, ELDER AND CO., 65, CORNHILL.

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PREFACE.

THE title of this volume indicates its contents with sufficient accuracy, and therefore I have very little to say in the way of preface. I walked, or rather climbed, through Norway, kept a diary of the details of all my doings and seeings, besides jotting down some of the many thoughts thereby suggested; and the following pages contain a transcript of the principal part of that diary.

Such a work, of course, can have no pretensions to learned research or elaborate literary structure; it is simply a narrative of what I saw and experienced, with a few of the reflections that occurred to me. The narrative of such tour would not be faithful or complete if some account of these mental wanderings were not included, for the solitary pedestrian finds companionship in thought, the succession of objects in his path being sufficiently slow to give time for reflection

upon each; and oftentimes his thoughts will have girdled the whole earth while his footsteps have scarcely measured half a mile.

Some apology may be required for the egotism that pervades the whole of this book, preface included. I might have avoided the frequent use of the personal pronoun, by adopting the usual devices; and I did make the attempt, but found it so utterly inconsistent with homely ways, hobnailed boots, plain facts, muddy trousers, and my habit of mind, that I resolved to stick to honest English, and take the consequences.

If any apology be needed for writing a book at all, mine is simply this: that no account of such a pedestrian tour in Norway has yet been published, that I travelled over much ground hitherto unexplored by tourists, and that any addition to our knowledge of Norway is, or ought to be, deeply interesting to all Englishmen.

W. MATTIEU WILLIAMS.

BIRMINGHAM AND MIDLAND INSTITUTE,
August, 1859.

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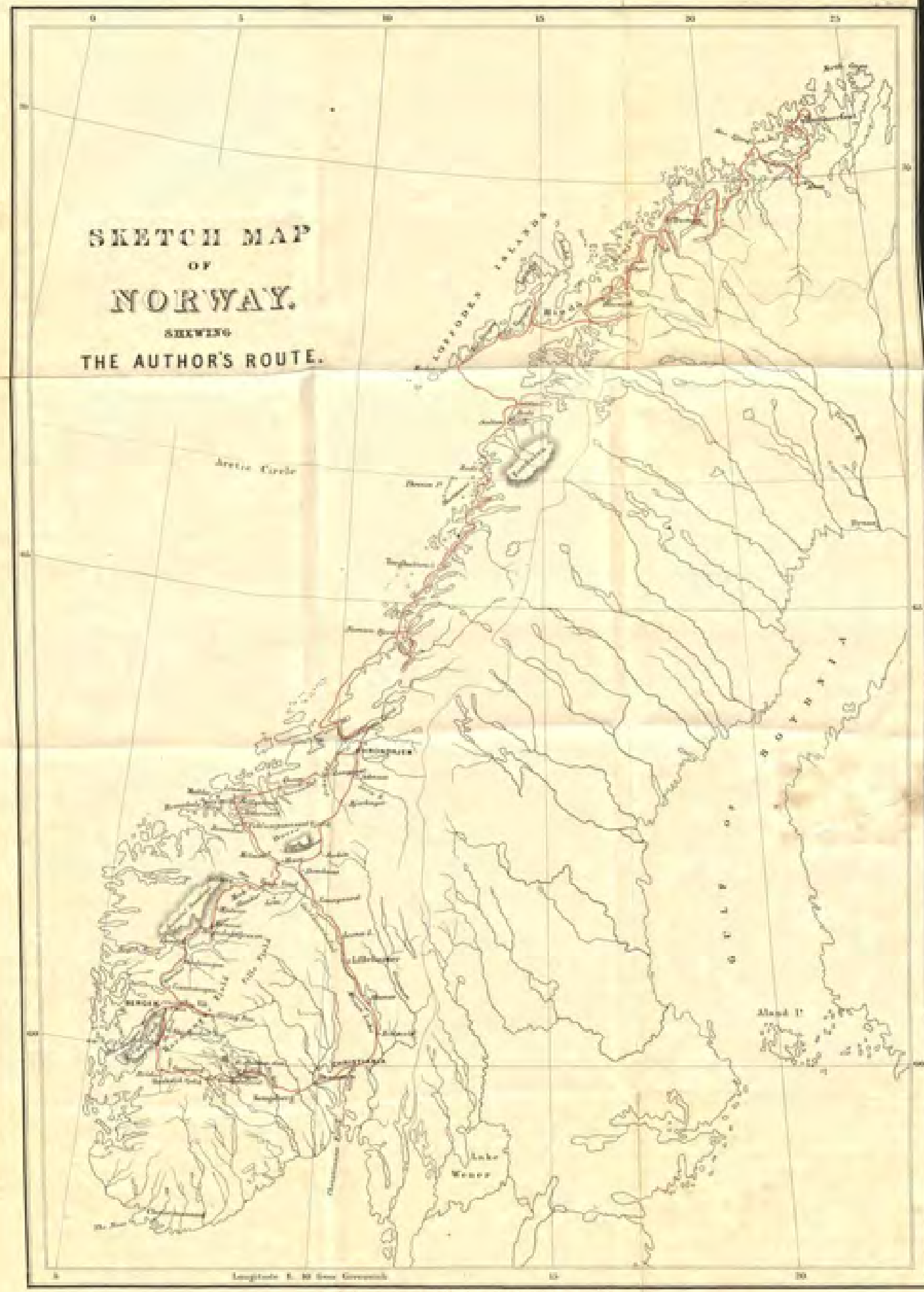
SKETCH MAP
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THROUGH NORWAY WITH A KNAPSACK.

CHAPTER I.

The Scandinavian coast—Christiansand—Norwegian architecture—Night in the North—The Christiania Fiord—Christiania; its streets, houses, and shops—The Klinkenberg, or Vauxhall of Christiania—Popular amusements and indications of character—Absence of police and passport interference—Independence of Norwegian hotel-keepers—Interest in English affairs exhibited by the Norwegians—Norwegian Lutheran churches—Botanical gardens and popular museums—Necessity of popular instruction in science and natural history—Absence of extreme poverty and squalor in Christiania—Politeness of the Norwegians—English physiognomy.

After a rough passage of about forty-eight hours from Hull, by a screw steam-packet of extraordinary rolling and pitching capabilities, we come in sight of the Norwegian coast, presenting a wild broken shore of gray, rounded, rocky ridges, with smooth, slippery-looking surfaces near the sea-edge, where the waves run up the slopes and slide over the points of the low promontories as though they were greasy. There are no sands; no pebble beach; the breaking waves make no roar and rattle here, as they do among our chalk-flint pebbles; they

only slap and splash upon the hard, unwearing rocks, which are composed of a sort of mineralogical mongrel, called gneiss, a cross between the fire-born granite and the water-laid, stratified rocks. These promontories are evidently the points of spur ridges, the outermost extremities, the fingers and toes, of mountain giants further inland.

We have cargo to discharge at Christiansand, which occupies a few hours. By this time, the aristocracy and the proud democracy of our small community have fraternized, and the saloon and fore-cabin passengers form a united company of eight persons, who go ashore for breakfast with strong anticipations relative to salmon. We are guided by my fellow-passenger of the fore-cabin, a Norwegian stone-mason, to the principal hotel. Here, after some negotiation, the proprietor consents to supply us with breakfast, which, in the course of time, makes its appearance. The Norwegians are a deliberate and phlegmatic people, and do nothing in a hurry.

The breakfast consisted of several plates distributed irregularly over a large table, each plate containing thin shavings of something. No. 1, thin shavings of raw dried salmon, of which there were repetition plates; No. 2, thin shavings of cold veal, also repeated; No. 3, tongue shavings; and No. 4, ham ditto. In addition to these, there were cold boiled salmon and hot eggs, with bread, black and white. The coffee was marvellous, strong enough for a Turk to sip with his chibouk, and well flavoured; the cream, worthy of Devonshire, both in quality and quantity. The charge

was 2*s.* each, stated and paid in English money. Our breakfast-party was brightened by the presence of a lady, one of the saloon passengers, the wife of an American clergyman, who has since published an interesting work upon Norway and Sweden.

Two hours strolling about the town enabled us to form some preliminary notions of Norwegian architecture. Christiansand has a very colonial appearance; it looks like a place where emigrants have newly settled. All the houses are built of logs, and are at some distance apart from each other, though in lines forming streets. This separation is probably a precaution against fire. Some houses were being built and in different stages of progress, affording us an opportunity of observing the mode of construction, which is the same here as throughout Norway. Four large stones, commonly rounded boulders or glacier moraine blocks, form the foundation. These are placed at the angles of the ground-plan of the building; then the trunks of fir or pine trees, rudely squared, are laid, with their ends resting on these stones, and thus the wall begins. At about one foot from the end of these logs broad notches are cut to a depth equal to one-fourth the thickness of the log, and a width equal to its whole thickness. Other logs are similarly prepared; these are laid with ends crossing, the notch of one log sinking into the notch of the other, so that the lower face of the upper is level with the mid thickness of the lower. This is continued all round, till a thick, firmly-dovetailed wooden wall is built. The crevices between the logs

are stuffed tightly with moss or lichen. The roof is a framework of heavy beams, covered with planks, overlaid with sheets of birch-bark, called "naver." Moss or peaty soil is spread upon these to a depth of several inches. A rich vegetation is common upon such roofs, and occasionally a goat may be seen grazing luxuriantly upon the house-top. This is the usual roofing, but at Christiansand tile roofs abound.

We sail again at about mid-day, and towards midnight approach the mouth of the great estuary, which, broken up by hundreds of islands and inlets, finally closes at Christiania. It is midsummer eve, and many fires are lighted on the hills, rendering it difficult to distinguish from them the "*Faerder*," or *farther* lighthouse, which marks the outer point of the Christiania Fiord. But lighthouses are little needed on such a night as this, when there is no darkness, though the day has gone.

We are all on deck to-night, passengers and sailors, leaning on the bulwarks and looking towards the North. It is eleven o'clock, and the sun has but lately set. We can see exactly where he is below that line of distant hills upon the shore. They were dull gray two hours ago, but now they have a tint of deepest purple, and their outlines are wondrously sharp. There is a thin film—a mere transparent veil of halo-cloud out there, the kind of cloud called cirro-stratus—a sheet of what would be thin fog but that it is some two or three miles high. The colours of the sunset cling to this, and the sun below the horizon throws a clear and definite light

J. Steeple Del.

M & N Henhart Chromo Lith.

MIDNIGHT ON THE CHRISTIANIA FJORD.

Published by Smith, Elder & Co. 65, Cornhill, London 1859.

upon it, as upon a screen. It marks distinctly the position of the sun, and thus we are able to watch him gliding on slowly from the west to north, sinking in the meanwhile a little more. Now it is midnight, and the subterranean sun due north. There is light enough to read a newspaper if it face the north. Just over the sun is a vanishing semicircle of buff light: westward it grows to orange, and from this orange zone broad bands of browning red stretch upwards and outwards. On the eastern side the buff tint melts and darkens into a fresh cool gray. Further on, in a widening circle, extending upwards, and eastwards, and westwards, to the south horizon, all these colours melt away gradually to neutral gloominess. There, at the southern meeting-place of sea and sky, both are mingled in one heavy leaden semi-darkness. This is the region of night. Farther on over the bending sea, men have been burning gas and candles for the last three hours or more. We have all learned book-wise that it is so, but here the southward darkness is visible. So are the sunny midnights of the further north. There is the sun, obvious though unseen: his body hidden by the earth's rotundity; but the lighted atmosphere, visible beyond the distant mountain-tops, shows both his presence and position in the region of continuous summer day.

Thus visible all at once from the ship's deck are evening and morning, night and day; sunrise and sunset seen together, though definitely separated by the north midnight glow; the character of each marked

most distinctly and shown in curious contrast. Why there should be such difference I am not able to explain; why the sun's rays in passing westwards should tint the sky with warm, languid, evening colours, while those that at the same moment start upwards towards the east should look so cool, and gray, and wakeful, I cannot tell; but here they are, side by side, in unmistakeable contrast.

We all dream of the bright sky of the sunny south, of its clear blue zenith and golden-hazed horizon; but when we live beneath it for awhile and gaze upon it daily, its fiery, dazzling beauty overstrains the senses, and the eye soon tires of its glare; but in this modest twilight of the north, the gentle "gloamin," there's a tempered fascination that never wearies us—it grows continually in loveliness even unto midnight and its next day's reawakening. It bears the same relation to the southern sunlight that affection does to passion. There is no reaction, no craving for the shade.

Painters have represented nearly all kinds of sky effects. Turner, like an eagle, has dared to face the sun in his full glare, and to place him in the middle of his pictures, showing us how we see a landscape with sun-dazzled eyes, when everything is melted into a luminous chaos, and all the details blotted out with misty brightness. Danby, and many others, have painted sunsets gloriously; a few antique Dutchmen have accurately copied particular instances of sunrise. Such a midnight as this would be a glorious subject for a painter worthy of it, and to the artist himself a most

valuable study of the characteristics of evening and morning light.

We all linger on deck long after midnight, then one by one descend, myself the last of the passengers. I have scarcely reached the cabin floor, when I hear the mate call to the captain to look over the starboard bow at a ship on fire. Of course I hasten upon deck again, and look over the starboard bow forthwith. We soon perceive that it is not a ship on fire, but the moon, reddened by the veil of misty cloud, rising behind a ship on the horizon, and looking like a dull lurid flame over the deck and between the masts and sails. It is the half-moon, of huge apparent size, rising point upwards out of the eastern leaden-gray part of the sea. She has a dull, scowling visage, as though angry with the sun for cheating her of her nocturnal supremacy. The form of the moon is curiously distorted by the unequally refractive power of the strata of air through which her different parts are seen, the lower limb being unusually lifted and flattened upwards, as though it were soft, and had been dubbed against the hard metallic horizon.

We wake up in the Christiania Fiord next morning, which hereabouts is studded with islands, and bounded by a gray rocky coast that grows more fertile and beautiful as we approach the city. In the immediate neighbourhood of Christiania the scenery of the fiord has a varied and bright summer aspect of much beauty, such as an Englishman is little prepared to find in the latitude of 60° north. I had written it down the Como

of the north, but have deleted the passage, as the sky of Norway may not always be so bright and blue as this morning.

Depositing my knapsack at the Hôtel du Nord, after a breakfast similar to that at Christiansand, I make exploration of the city in company with Andersen the stonemason, and one of the other passengers, an English gentleman who has come to Norway to kill time and salmon. Andersen kindly offers to act as guide: he is proud of his native city, even after New York and Liverpool, to say nothing of a week's residence at Kingston-upon-Hull; and he has fair reason to be proud of Christiania. I have never seen a town of its size* so free from indications of squalor and vice. I seldom visit a city without paying special attention to the slums, more even than to the palaces; and as I cannot afford to hire cabs, am compelled, even in doing the guide-book, to see some of the realities. Christiania is a remarkably white looking city, with wide, clean, bright-looking streets; the householders clean their windows scrupulously, and keep the frames well painted. Just as the greatness of a nation depends upon the virtues and energy of the individuals composing it, more than upon the wisdom of its monarch and statesmen, so is the embellishment of a town more effectually promoted by each citizen cleaning his own windows and house-fronts, than upon the erection of half-a-dozen public buildings of great architectural pretensions. The houses here are large and comfortable-looking — not

* About 40,000 inhabitants.

pretentious and aristocratic, but, on the contrary, they look like the residences of well-to-do, careful people, who live within their means and pay their tailor's bills. Opposite the Hôtel du Nord is a baker's shop, which may be taken as a type of some of the peculiarities of the shops in Christiania. It appears like a private house—a mansion, I might almost say, from its dimensions. There is no shop-front, merely the common dwelling-house windows, which are decorated with growing flowers in pots; but the flowers are not floury, nor does the shop-keeper look whiter than other Norwegians. I should never have guessed that bread was made or sold there, but that swinging over the door is a wooden effigy of a convoluted loaf—the usual true-lovers' knot done in bread, common here and in North Germany. Most of the food-vendors have shops of this kind. There are a few with shop-fronts, but these are chiefly devoted to the sale of fancy articles; other shop-keepers place a few samples of their wares in plain parlour windows.

On making some purchases of books, maps, and minor matters of clothing, I find in every shop some one who can speak English, and that generally it is well spoken. English articles prevail at the drapery and haberdashery establishments; the latest devices in shirt-collars and similar articles are there, stamped with the names of the best-known London houses, and retailed at the same price as in London.

The regular lions of Christiania, such as the Palace, the University, a picture-gallery, &c.—for which, see

Murray's Handbook—contain little that is characteristic, beyond some of the landscapes and interiors of what is called the Dusseldorf school, and is too commonly regarded in England as really German. The artists of the so-called Dusseldorf school are Norwegians; but why they should adopt a German name, and call the exhibition they had in Bond Street "The German Gallery," and allow their pictures in the Crystal Palace to be classed as German, I do not understand. They stand alone; there never was a "school" of art more definitely characterized. As landscape-painters they are pre-eminent: the German artists do not approach them. Their pictures have not been fairly appreciated in England, and have found few purchasers. The artists sank their patriotism for the market sake, and failed in their object; for they were thus swamped in the wide sea of German art, while they might have stood alone high and dry and conspicuous had they frankly called themselves the Norwegian painters.

In the evening, we—that is, the salmon-fisher and myself—visit the Klinkenberg, which is the Vauxhall or Cremorne of Christiania. The chief entertainment is the merry-go-round, an extensive affair of the kind, elaborately constructed and placed under cover of a special building. The fee is one skilling—about a half-penny—per ride; the apparatus accommodates some sixty or eighty people. The merry-go-round evidently holds a higher position in the social scale here than in England: fathers and mothers, comfortable-looking middle-aged citizens, sit seriously on the wooden horses,

and in the mock railway cars, enjoying their halfpenny ride with all the simple happiness of little children. There are also a camera obscura, several peep-shows, and a theatre of some magnitude, in which a company of English acrobats—"Professor" Milner and his infant sons (all full grown)—go through the usual performances; the father playing at football with his sons, walking about with a quantity of them on his head, and standing in the attitude of Ajax defying the lightning, while they make trussed fowls and "spread-eagles" of themselves, in flat controversion of all that anatomists have written and demonstrated concerning the structure and functions of the hip-joint and its ligaments. These are followed by the performances of the Chinese knife-thrower and straw-balancer, who astonished the Londoners some few years before. He is now accompanied by a fire-eating brother. At the conclusion of the Chinese performances, two English dancers appear. Their chief effort is the "Highland fling," which evidently enjoys the same popularity here as at the Surrey Theatre and Grecian Saloon. The price of admission to the gardens is 6 *skillings* (pronounced shillings). The extra charge for the theatre is, front seats 36 skillings, second class 24 skillings, back standing-places 12 skillings. The mysteries of the camera obscura and peep-shows—cosmoramic views, in politer English—like the delights of the merry-go-round, are purchasable by a special extra payment. There are convoluted walks about the gardens, with seats and tables for refreshments, after

the manner of old English tea-gardens; and among the trees and bushes are sprinkled a few coloured lamps, looking dull and sickly for want of darkness.

All classes of people are here, excepting the class most numerous at our Cremorne. Servant-girls and their mistresses, workmen and their masters, merchants and their clerks, students and professors, meet on common ground, and enjoy the merry-go-round together. Among other caterers of refreshment is an old woman with a basket of oranges. I inquire the price, in the best Norsk I can muster, and understand her to reply that they are 12 skillings each—about fivepence halfpenny. In order to be satisfied, I take one, and give a 24 skilling piece; receiving 12 skillings change. My companion protests that he shall return by the next steamer; for his "governor" only allows him 800*l.* a year for pocket-money, and such an income is absurdly inadequate in a country where a penny orange sells for sixpence. We carefully watch the old woman's proceedings, in order to ascertain what class of persons are her customers, and our astonishment is by no means diminished on finding that they are chiefly working-men, who pay from 8 to 12 skillings for the exotic luxury, according to its size. In every case that we observed, the luxurious swain was accompanied by a damsel, with whom the orange was shared; and from the expression of aristocratic suavity assumed by the features of the orange suckers, and maintained as long as the orange lasted, it was evident that half an orange is "*the thing*" in Christiania.

There are no policemen, *gens d'armes*, or any other official order-keepers here; we have seen none in any part of Christiania all day. There are some six or seven hundred people in the gardens and theatre, and not one questionable woman or riotous man is visible. The Norwegians are sometimes spoken of in England as a drunken people, but there is no indication here of even the earliest preliminary stages of intoxication.

After leaving the gardens, we walk about the city, in semi-daylight, between eleven and twelve o'clock. A few people are yet moving, but none of the "unfortunates," who have possession of our streets at this hour, are visible here. In some parts of the city, we walk for nearly half a mile and see no one: no police, no watchman; and we hear no sound. A city sleeping in the midst of so much light has a strange effect on the imagination; the charmed palace of the sleeping beauty seems to be somewhere in the neighbourhood.

The honesty of the Norwegians is strikingly demonstrated by the condition of the shop-windows. Many of them containing articles of hardware, books, and other portable goods of some value, are without shutters, the wares exposed behind common crown glass panes; and this in a capital city where we saw but one watchman in the course of a three-quarters of an hour walk through the streets.

When I landed in the morning, I felt for the first hour or two impressed with a vague sense of embarrassment, arising from a sensation of having forgotten or missed an unknown something. Had I left my stick

on board? No. Money all right? Yes. Passport *visé?* Ay, that was it? I knew there was something omitted: it was the passport botheration.* To land in a foreign country, and be subject to no annoyance from *gens d'armes,* and not even to have one's luggage searched (for I carried my knapsack ashore with no other hindrance than a look and a nod from an English-looking custom-house officer), is a new sensation, and, on the whole, rather a disappointment. To the true travelling Englishman, his passport is a source of intense enjoyment: it works off all his bile; it supplies him with an inexhaustible grumble-mine: it affords him an opportunity of applying uncomplimentary epithets to men in office wearing uniform, who don't understand English; it is a perpetual reminder —a glaring, material demonstration—of the superiority of English institutions, and of the personal liberty which is the birthright of a free-born Briton. While he carries a passport, he has always something to be disgusted with; something that he can denounce as un-English.

The absence of passport interference is not the only peculiarity of a landing at Christiania, for there is an equally remarkable absence of hotel-touters—there are no "commissionaires" threatening to tear the sea-sick traveller limb from limb. Although the arrival of the English packet is quite an event in Christiania, the hotel-keepers take no outward notice of it;

* I carried my passport, which had been *visé* by the Norwegian Minister in London. It was merely looked at on landing, and returned to me without delay.

the tourist finds his way unmolested to the hotel he chooses. When he arrives, he has to wait upon the hotel-keeper, in the hotel-keeper's special apartment, and request the favour of being supplied with board and lodging. There is no obsequious greeting on the threshold, no bowing of waiters, or luggage-bearing enthusiasm on the part of boots, and yet there is no ground for complaint of incivility, the reception being characterized by calm politeness. When we waited, hat in hand, upon our host of the Hôtel du Nord, he received us blandly in his little room. He consented to let us have a bedroom, and even indicated the direction in which it existed; he referred to the fact that a bell might be found connected with some part of its walls, and suggested the possibility of some one coming to wait upon us if we rang that bell.

This was evidently a little preliminary fencing of dignity: he had probably encountered some stray specimens of those wretched libels upon true Englishmen,—the vulgar rich,—who give their orders, always believing that "the waiter's in the room;" and who are so utterly void of true gentlemanly feeling as to believe that lavish expenditure can justify insolence. Some of these, common enough "up the Rhine" and at Chamouni, may have found their way to Christiania; but be that as it may, our host gave us at once to understand that he was a gentleman and expected to be treated accordingly, and would on such conditions reciprocate. I was delighted to meet with such a landlord, and my companion, the salmon-fisher, equally so. We came to

an understanding speedily, and then we found him a most polite and attentive host.

On our return from the gardens at about midnight, we found a large party just dispersing, and on inquiry, we were informed that a meeting had been held to listen to a reading of the English newspapers brought by the ship that carried us. Such meetings are held periodically here, when our host, who speaks English purely and fluently, reads the English papers, translating as he proceeds. English politics, and all the incidents of our social progress are carefully and intelligently studied by the Norwegians, who seem to be quite as familiar with the names and proceedings of our leading statesmen, as they are with those of the members of their own Storthing, or parliament.

On the morning of the following day I visit some more of the regular guide-book lions, which a conscientious tourist who knows his duty towards his Murray feels bound to do exhaustively. There are two or three churches of importance, besides a market-place and a bronze fountain, as well as the other matters before mentioned. The Norwegian Church is Lutheran, and the churches in their internal arrangements indicate Luther's courage. Here, as in so many parts of Germany,—especially in old, fighting, Protestant Nuremberg,—they have not thought it necessary to mutilate the artistic remains of the old church: the pictures, statues, and gilding are allowed to remain; for these reformers were evidently in no fear of being converted by the sight of a Madonna or a candlestick.

The ornamentation of the Christiania churches is not very remarkable, but there is enough to show that the Northmen here have not rushed into that barbaric reaction which in Scotland led to the wanton destruction of glorious old cathedrals, the anathematizing of organs and stained glass, and the sepulchral fashion of ecclesiastical whitewashing.

The chief characteristic of the principal church here is the bright gilding of the wooden beams of the roof; which I should admire, but for the fear of correct and classical people, who might denounce my taste as barbaric. There is a very fine painting of Christ in the Garden, by Tiedmann.

They have a convenient way of giving out the psalms here: black boards are hung in different parts of the church, and on these are chalked the number of the psalm or hymn to be sung before and after the sermon. In the tower above the belfry a fire guardian is constantly posted, whose station commands a splendid view of the city and the fiord. To prove his vigilance, he has to call every quarter-hour from each of the four sides of the tower. In a city built so largely of wood, where a conflagration once started may become so disastrous, such a precaution is fully needed.* The sound

* The recent fire was curiously reported in our newspapers. It was stated that "nearly three-fourths" of the city was entirely destroyed. The fire, though most serious, was not so extensive as this. Nearly three *quarters* of the city were destroyed; but three quarters, when applied to a city, do not necessarily mean three-fourths, for it may be divided into a dozen quarters, corresponding to our parishes. This is the case with Christiania, and about two and a half of these quarters were destroyed.

of the man's voice over the house-tops awakens reminiscences of the East, of the Muezzims calling the faithful to prayer from the minarets of Constantinople.

The botanical gardens, situated a little way out of the town, are really what they pretend to be. They contain specimens of the common wild plants of the country, growing in the open air, and arranged in the natural orders. We have plenty of horticultural gardens in England, where showy flowers are exhibited; but we are sadly in want of gardens where a student may see examples of common plants so grouped together as to afford him a general view of the physiognomy of the orders and genera, such as can scarcely be obtained by any other means. We call ourselves a practical people; but in such matters I suspect that our neighbours generally are far more practical than ourselves. Our university museums, and even those connected with the most popular educational institutions, are almost destitute of educational value; they are for the most part mere collectors' and professors' museums: collections of rarities and monsters, instead of microcosms, presenting us with a model of nature as it really is.* Where, for example, have we a geological museum

* An exception to the above remarks must be made in favour of the recently opened museums of South Kensington, where the educational objects I have referred to are kept in view, and in some parts —such as the trade museum—admirably carried out. Still we have no museum for the elementary illustration of science, and such a thing seems to have been scarcely thought of; yet how valuable to the student of chemistry would be a collection of specimens of all the elements and all their known compounds: and of some portion, at least, of the multitude of natural and artificial organic compounds,

in which the student can find that which is essential at the very outset of his study—a series of rocks, arranged and clearly catalogued in the order of natural superposition; the specimens selected to exhibit the most *common* mineralogical and palæontological characteristics —the fossils in as fragmentary and imperfect a condition as the student will actually find them when he goes abroad with his hammer? A few visits, of two or three hours each, to such a museum, would afford an amount of real information not attainable in as many months otherwise. After such a course, he might be let loose among the hills, where he could then work profitably. Natural history can never become popular until every branch of it is illustrated by such *elementary* museums; the cost of which, from the abundance of the required materials, would be so trifling, that every town with ten thousand inhabitants might have a good one. Museums for rarities and choice specimens might, of course, be adjoined to them where practicable.

That natural history should be popular, that a general knowledge of its great facts, and of the physical and

many of which are so exquisitely beautiful, regarded as mere crystalline forms. I have often thought that the wilderness of untenanted galleries of the Crystal Palace might be cheaply and easily turned to account, by draping their sides with pictures and diagrams representing experiments and natural phenomena, illustrating a popular course on natural philosophy and its application to meteorology, physical geography, &c. &c. If such diagrams were accompanied with descriptive matter written beneath in letters so large that those who run might read, they would be highly attractive and most valuable. The success of the Kensington Museum shows that this sort of demonstrative instruction through the sense of sight is very popular.

physiological sciences which it illustrates on the large scale, should be possessed by everybody of every station and degree, is simply a matter of human necessity. Man cannot exist without it: a digesting, blood-circulating biped may; but a human being cannot exercise his noblest faculties if the image of his Creator be not stamped upon his soul with the impress made by a knowledge of his Creator's works. We see design, and we argue intention, from the fitness of the tiger's claws to seize upon his prey; the hoof and teeth and stomach of the cow show that the green herbage is her destined food; and so in the universal and exquisite adaptation of all the harmonious forces and phenomena of creation to the mental faculties of man, do we witness the proof that we are specially designed to study them, as surely as a watch is designed to indicate the time; and, therefore, to neglect such a study is to oppose the will of God in rebellious indolence.

Besides following the guidance of Murray's *Handbook*, I walked through most of the smaller streets of the town, and did not find any low squalid slums, such as exist in all our large towns and most of those on the Continent. The poorest streets are composed of clean, comfortable-looking, wooden houses; and the poorest people have a well-conducted, respectable manner and appearance. There are no blackguards visible: no people that any reasonable person of any rank could object to sit amongst in a railway carriage. The windows of the humblest houses are scrupulously clean, and filled with bright flowers in earthen pots, carefully

coloured with red ochre. Flowers in a poor man's dwelling are the outward symbols of most of the domestic virtues: I have had much experience in seeking lodgings in strange places, and always make first application at those houses which have well-tended flowers in the windows.

I once believed in the theory that a soft, southern climate, bright skies, and out-of-door existence, had much to do with the general diffusion of politeness and external refinement among the poorer classes; and by this theory accounted for the superiority of continental poor people over our own countrymen; but what I have already seen in Christiania has altered that opinion, for the Norwegians are remarkably polite: ceremoniously so in the matter of bowing; and the best feature of this bowing is, that the gentleman bows to the poor man in just the same way as the poor man to the gentleman. I saw to-day a man, who appeared to be a rich merchant, alighting from his carriage; a servant opened a broad gate that led to the house he was visiting; the owner of the carriage took off his five-guinea Panama hat, and described with it a large semicircle, terminating at the knee, as is the custom here; the servant did the like, neither more nor less respectfully than did the gentleman—*ergo*, both were gentlemen.

The physiognomy of the Norwegians is peculiarly English—more so than that of Englishmen; the special characteristics of the "wooden-faced" Englishman are seen more strongly marked here than in London. The Norwegians shave the hair off their faces with razors,

as most Englishmen do, and having very pale and rather thin whiskers, their faces exhibit very strikingly the injurious effects of this practice of daily domestic surgery.

The costume here presents very few peculiarities, being nearly the same as in London or a large German city; but white Panama hats, with broad black bands, prevail among the men.

The hotel charges are rather high in Christiania, being nearly the same as at our best hotels in England, while the accommodation is far inferior. I paid for breakfast 2 marks, or about 1*s.* 9½*d.*; dinner, 4 marks, or 3*s.* 7*d.*; Christiania ale, 6 skillings, or 2½*d.*, per pint bottle; supper of bread and cheese and claret, 1 mark 20 skillings, about 1*s.* 7*d.*; lodging, per night, 2 marks, or 1*s.* 9½*d.*; attendance for two days, 15 skillings, or about 6*d.*, which our host told us was quite sufficient, as he did not wish his servants to be spoiled by English lavishness. My companion had some soda-water, which cost 1 mark, or 10¾*d.*, per bottle, though made in Christiania.

CHAPTER II.

The Norwegian Railway—Continental railway management compared with English—Treatment of third-class passengers and its effect upon the dividends—Eidsvold—A Norwegian "Station"—The Miosen Lake—My friend the cook—The Scandinavian origin of Englishmen—Knapsacks in general and my own in particular—A pedestrian's outfit and laundry—Lillehammer—The Guldbrandsdal—The Norwegian carriole—Fladbrod—Attendance at a Norwegian farm-house station—Eccentric Englishmen in Norway—Traces of ancient glaciers.

In the afternoon I took the railway to Eidsvold, a distance of about forty miles English; fare by third class, 2 marks 18 skillings—about 2*s.* 5*d.* There are four classes: the fourth-class carriages are open, the third class the same as our second, and the second nearly equal to our first class. The first class, on this, as on most continental lines, is a sort of fancy article, maintained chiefly for the purpose of obtaining an extra price from Englishmen, the natives rarely using it. Here also, as on other continental lines, the directors know something of the elementary principles upon which commercial success depends, and therefore pay most attention to their best customers, the mass of the people; while the heads of which our railway boards are made, treat their third-class customers—who should

be their best customers—with every practical indignity and annoyance that is not specially prohibited by Act of Parliament. The Act of Parliament compels them to run one third-class train per day at one penny per mile, and they run exactly one and no more;—the Act of Parliament compels them to cover the carriages, and on that account they do so;—the Act of Parliament compels them to have some kind of windows to these human cattle-boxes, and they do put in panes, like the peep-holes of a show-box;—the Act of Parliament compels them to run at fifteen miles per hour, and they take scrupulous care not to exceed that pace; or, if the fear of collision compels them to do so on part of the journey, they shunt their third-class victims off the line, and wait an hour or so until the express and the ordinary train, which started two hours later, shall pass them.

On continental lines, third-class and, where they exist, fourth-class carriages are attached to every train except the express, and the passengers by these have the same advantages in speed, day tickets, &c., as the other ordinary passengers; consequently, the shareholders in continental lines get good dividends, while those who have invested largely in English lines are for the most part nearly ruined. Our directors tell sad stories of parliamentary expenses, great original outlay in permanent works, and actually make that a plea for contracting their traffic, and preventing their best paying customers (a third-class carriage of equal size holds more money than a first-class) from travelling at all; for the mass of the

people must either travel cheaply and speedily or stay at home.

There are some special peculiarities in this little line. It is, to a great extent, the property of a few English engineers and contractors; and Englishmen are astonished at the amount of traffic that is done on a single line of rails, and at the total absence of engineering and architectural triumphs for the world to admire and the shareholders to pay for. I am told that it is a most profitable speculation, as may be expected; for this is the great highway of Norway; and where people can travel at a halfpenny per mile, at convenient hours, the whole population become habitual railway travellers. What might not the profits upon our railways be if a corresponding proportion of our dense population made use of them?

This railway passes through a rich fertile valley with a pretty river winding along it, and then plunges through some dense forests of tall pines, with stems so straight and uniformly taper that they appear like huge fishing-rods. Their bark has a fine red colour, which reflects the sunlight and fills the whole atmosphere between the labyrinth of bare poles with a warm tinge, similar to that produced by stained-glass windows in the aisles of a Gothic cathedral.

Eidsvold, the northern terminal station, is beautifully situated on the river which flows from the Miosen Lake to the Glommen. After some inquiry, I found the inn, or station: it consists of a number of wooden houses, some containing hay, others adapted for the entertainment of cattle, and one being a store well stocked with

earthenware, hardware, drapery, and haberdashery. I was shown to a wooden room in which was a wooden box with a bed in it, and other wooden objects; and had a satisfactory supper of trout, with potatoes, ale, and good brown bread; a comfortable clean bed, without fleas, and with sheets of wholesome rough unbleached linen. In the morning I had breakfast of strong coffee, bread, cheese, butter, and fresh-water herrings from the Miosen, pickled with oil like sardines; paying two-and-a-half marks, or 2*s.* 3*d.*, for all: the bottle of ale cost 3*d.*, the rest 2*s.*

Steamed up the Miosen Lake in a boat belonging to the clever Englishmen, or rather Scotchmen, who made the railway. The Miosen is a long narrow lake not unlike our Windermere, but on a larger scale; it being some seventy miles in length. The mountains that form its basin rise to a height of about 2,000 feet at their visible summits; their form is not remarkable, but their sides, sloping down to the lake, are covered with rich emerald verdure, rivalling, if not excelling, our own green fields, and even those of Ireland. These slopes are backed by fine woods of birch and mountain ash, and dotted about them are the wooden farmhouses. Altogether the Miosen is a beautiful lake, but not exciting raptures. About half way on the lake is the site of the ancient town of Stör Hammer—*stör* signifying large, and *hammer* the same as our ham or hamlet. The ruins of its old cathedral remain, and near it, or I believe including it, is the farm of George Bidder, once the famous calculating boy, and now one

of the great English lords of Norway, with a very eligible interest in that snug little railway, and the Miosen navigation.

The land hereabouts is the richest in Norway, and the general aspect of the country very different from what one might expect in the midst of the Scandinavian mountains, lat. 61°, the same as the ice-bound coast of Greenland.

I took a deck passage, and found among the natives there assembled many who spoke English very well. I had long gossips with several, but the most interesting of all was that with the cook, a healthy energetic maiden, who had quite captivated me during the day by the business-like manner with which she did her work in the little galley on deck. In the evening when her work was done, as we talked together for a couple of hours or so, she was overflowing with loving reminiscences of an English family whom she had formerly served; especially of her kind mistress: the tears rolled down her round ruddy cheeks as she told me how her mistress tended her with motherly care during a long illness. Many ladies believe that servants are all ungrateful; these ladies would be wiser were they to reflect on the fact that the compact with a domestic involves obligations on both sides,—that gratitude is due to a good servant as well as to a good mistress.

My friend the cook was eloquent on the identity of English and Norwegian customs, telling me how old-fashioned people in Norway burn the Yule log at Yule time just as old-fashioned folks in England do, and how

they have in Norway a rhyme precisely the same as ours—

> "A merry Christmas and a happy New Year;
> A pocket full of money and a cellar full of beer."

She had instinctively come to the conclusion that the English and Norwegians are of the same stock, and listened most attentively to an exposition of my opinion that the aboriginal inhabitants of the greater part of Britain were the same as those of Norway, and that the same race inhabited both countries long before the Danish invasion of which we have historical records, and centuries before Cæsar set foot on British ground; though historians have hastily and fallaciously concluded that Britain was peopled with a Celtic race, simply from Cæsar's description of the inhabitants of the Kentish coast, where a local colony of Gauls might be expected to have settled by invasion from the neighbouring continent. The descendants of the old Kentish families of the coast are still distinguishable by their dark eyes and hair, and Gallic physiognomy; they are by no means of the characteristic English type. The prisoners in the Roman slave market, whom the punning Pope converted from Angles to Angels, could not have been dark-haired and dark-eyed beauties; for Italian angels (unless they be portraits of the painter's mistress) all have blue eyes, and red, auburn, or flaxen hair. Italian girls are liable to fall desperately in love at first sight with flaming red-headed Scotchmen, or Englishmen with straw-coloured hair: the "bella barba bianca" is

their ideal of manly beauty. The young Romans of our day, who risk their souls and do dreadful penances for visiting the English church outside the Porta del Popolo, go there to enjoy the felicity of breaking their hearts for the most flaxen-haired, grey-eyed Scandinavian specimens of English beauty: they scarcely look at the flashing, dark-eyed beauties whom the light-haired Englishmen admire. This is no matter of mere habit, but of original human instinct, that was the same in ancient as in modern Rome: had the British captives been dark-haired, black-eyed Celts, the great Gregorian pun would never have been uttered.

The first drunken man I have yet seen in Norway was on board the steamer to-day. I am told that great improvement is taking place in this respect; drunkenness, which was once rather prevalent, is now almost extinct in Norway.

Another gorgeous northern sunset; the combined evening and morning effects were not visible on account of the hills, but the lighting up of the hills themselves was most magnificent.

I landed near Lillehammer, and walked up the hill to Hammer's hotel. Meeting the steward on the way, who introduced me to his friend Mr. Fk. Hammer, we supped together. The hotel, built of wood, is a large one, of considerable pretensions as to style and ornament; the handsome lace curtains at the windows, and a magnificent door-mat of fir and juniper branches, are its most striking features. This fir-branch door-mat is peculiarly effective, and its odour very agreeable

when bruised by the feet; the fashion is worthy of adoption in English country mansions that have a spacious entrance-hall.

There were many Swedes with leathern caps and aprons on board. They come here for work, and after a while return; wages being higher in this part of Norway than in Sweden.

After a supper of cold trout, cheese, butter, and ale, I retired to a good bed in a detached building, the window close to the road and level with it, but without shutters or anything more than the lace curtains. It was the same at Eidsvold.

The fare by the steamer, second class, was 3 marks 20 skillings, or 3*s.* 5*d.*; dinner on board, of maccaroni soup and good roast beef, 18 skillings, or 8*d.*: this was rather under the usual charge, as I dined in the cook's galley.

The next morning I hooked on my knapsack, and made a fair start. I pity the unhappy tourist who carries a portmanteau, or even a carpet-bag, and can make no progress without a "conveyance;" who is perpetually waiting or hurrying for post-horses, or the starting of trains and diligences; who is dependent upon a laundress for the washing of his shirt; and who goes about groaning for "comfort" while travelling. A man to whom comfort is necessary, and who cannot find enjoyment in discomfort, should never venture beyond Herne Bay or Margate, and only stay a fortnight at either of these places: by no means should he go to Norway.

Before advancing on the journey I must describe my knapsack. I have had much experience in knapsacks, and made many improvements and inventions in them; my last invention, previous to the present one, being a knapsack of zinc, suggested by a botanical vasculum, and somewhat resembling one. I walked through Wales and the Lake district with it, and found it had many advantages; but that for which it was mainly constructed was not among them, viz., relief from the heat and perspiration at that part of the back upon which the knapsack rests, and which are the chief objections to carrying a knapsack. Besides this, the country people were continually inquiring the price of candles; assuming, from the shape and material of the box on my back, that I was travelling for a house in the tallowchandlery line.

My present knapsack is made of strong open wicker-work, curved, like an angler's basket, to the shape of the back, and lined *on the inside* with waterproof cloth, so that the bare wicker rests upon the back. A free ventilation is thus secured, which effectually carries off the perspiration. The top is closed by a leathern flap with straps. The attachment of the shoulder-straps is the same as in the Swiss and German knapsacks, viz., from the middle of the upper part of the back of the knapsack; so that the straps cross the shoulders diagonally, and require no breast-straps: which last are abominable inventions, most uncomfortable and injurious to health by pressing upon the ribs and contracting the chest. This wicker knapsack combines lightness and

coolness in the highest degree; it is strong, and keeps its shape firmly, and is altogether the best I have seen.* It is a great mistake to make a knapsack of pliable material, such as waterproof cloth; such a knapsack becomes a mere unmanageable dangling bag upon the back.

As regards the contents of the knapsack, the great art is to reduce them to the minimum. I have met many a pedestrian in various parts of Europe, and have generally entered into conversation on this point, and I found that almost every Englishman carried too much: I never met one who carried too little. The common illusion at the outset is, that three or four shirts are necessary. This is altogether a mistake; one on and one off only are required: both should be flannel, of large measurement, and of the best and softest quality obtainable; such as are made for rowing and cricketing. But how about a night-shirt? the reader will exclaim. The shirt off is the answer. But, it may be objected, they will both be dirty. Nothing of the kind! With proper management, you may have a clean shirt every day. It must be managed thus:—

Suppose the hour to be 10 A.M. You have walked some distance, are getting hot, and disposed for a halt. You make for the river, lake, or the first brook or mountain torrent that crosses your path; and such are always to be found in the sort of country that pedestrians travel. Call the shirt on, A, and the shirt off, B.

* Should any trunk-maker or other tradesman undertake to manufacture such knapsacks for sale, I will gladly aid him in constructing his first model.

Unhook your knapsack at a cosy nook by the water-side, take out shirt B, and wash it in the stream. At first, the washing of one's own shirt appears a great undertaking, but the difficulty soon vanishes. A flannel shirt that has only been worn one day and one night, merely requires a little soaping under the armpits, at the neck, and wristbands; a little scrubbing, beating, rinsing, and wringing in the pure water, is sufficient for the rest. When this is done, spread out the shirt on the grass, and take your bath. If merely a shallow brook or torrent is available, lie down flat upon the pebbles or between the boulders, and let the water flow over you for a quarter of an hour or so. By the time that you are dressed, your shirt will be half dry if you wrung it out skilfully. To complete the drying, tie it to your knapsack, and let it dangle and wave behind you for an hour or so as you walk on.

Now let it be 5 P.M. of the same day. You are hot, and just sufficiently tired to enjoy the luxury of repose; you retire to the adjoining field, or into the forest, to dress for dinner, by taking off shirt A and pulling on shirt B. You revel in its freshness, for it savours to the skin of the sweet clear water it was washed in; you spread out shirt A, to ventilate till the perspiration it has absorbed has passed away, make up your diary, lie flat upon your back, and look through the branches of the trees into the blue infinity above, build castles in that region for half an hour or so, then pack up shirt A, and do the last stage of your journey at a rattling pace in the cool evening. Shirt A is changed

to do duty as a night-shirt, B is resumed in the morning, in order that A may go to the wash as B did the day before.

Many suppose than an overcoat is necessary when travelling in a mountainous country; this is another popular fallacy. The shirt off is always at hand to do duty when extra warmth is required. Every article, and every part of every article, of clothing should be woollen: coat, vest, and trowsers, of flannel-cloth, the linings of thin Welsh flannel. This may appear warm for summer costume, but is less so than it seems. In hot weather, the waistcoat should not be worn, but kept in the knapsack as a reserve for the cool morning and evening, or the mountain heights; the extra shirt is invaluable when benighted on a mountain, and compelled to sleep upon a rock. Three pairs of Shetland-wool socks are required under these circumstances; two pairs on the feet for extra warmth, and one pair on the hands as mittens. One pair on and two pairs off, is therefore the requisite supply of socks, which, of course, are to be washed at the same laundry as the shirts.

I have tried the arrangement above recommended, and also that of carrying three or four shirts and depending upon laundresses; in every respect, including the saving of time, the one-on-and-one-off principle is the best. A whole day may often be wasted in waiting for the washing of shirts. Collars are not quite so easily "got up." I have managed by first washing the collar, then doubling it with two or three layers

of white blotting-paper between, and the same outside, and then putting it in a book and sitting on it. Such a collar is not quite up to the Pall-Mall standard, but may pass. It, however, is not worth while to carry blotting-paper for this purpose, as a half-dozen collars weigh so little, and collars are not required at all on the road. A pedestrian should always carry a pair of forceps for the extraction of thorns, some lint and plaster, and a few yards of broad tape for bandage in case of mishap, such as a sprained ancle or the like. These are not the only surgical instruments required, for needles, thread, and buttons, are necessary for healing the wounds to which clothing is especially liable, from rough climbing. A light thin oiled silk cape, to be worn over the knapsack, is very useful in wet weather; it protects the shoulders and the upper half of the arms, which are liable to chronic rheumatism if long exposed to the contact of wet clothes.

These, with soap, towel, comb, tooth-brush, a strong knife, scissors, maps, guide-books, and a stout stick, with a long iron spike at the end, a note-book, and sketching materials, are nearly all that the pedestrian requires. In Norway his walking-stick may be a fishing-rod, and he will do well to carry some artificial flies for presents to the farmers: but of this hereafter.

Walked through Lillehammer (or *little* ham), which is a large village or small town, with broad and remarkably clean streets, large wooden houses, bright windows, with white frames and lace curtains. There is scarcely a window in the main street that is not filled with flowers

in bright red pots. Everybody appears to be industrious and well-to-do, and nobody rich and useless.

Beyond the town the road ascends, and commands some fine views of the lake and river; seats are placed on the most picturesque points. By the side of the road I passed a mass of charcoal and ashes, the remains of a log house, recently burned down, showing the risks to which this kind of building is too liable. The road is a new one; the date of its construction, from 1851 to 1855, is inscribed upon it.

There is a fine cascade here, the Hunefoss, with a gate leading to it, but nobody to pay for opening it. As civilization advances, this and other waterfalls will, I suppose, be capitalized as in England, and sixpence charged to see the show. There are huge sawmills here, doing a vast amount of work by water power.

Dined at Mosshuus station on brown bread, fish, and cheese, the charge for which was 12 skillings, or 5½*d.* Stopped for the night at Holmen station, supper of eggs and cold raw ham. There appear to be no establishments in Norway corresponding to our public-house, the French auberge, the German gasthaus, or the Italian osteria: everybody appears to live at home. These posting stations are farmhouses. The distance from Lillehammer to this place is rather less than twenty English miles, through the entrance of the Guldbransdal, which extends nearly up to the Dovre Fjeld. It is one of the richest valleys in Norway, and the most frequented by tourists; for whether they proceed northwards to Trondhjem and the midnight sun, or

take the western country about Bergen and the Hardanger, this is the usual route from Christiania.

My bedroom was without curtains, level with the road, and looking on to it as before. Breakfast of bread and cheese, with wonderfully strong coffee and rich cream, as usual. Supper, bed, and breakfast cost 1 mark 12 skillings, or 1*s.* 4*d.* Walked up the hill to Throtten, where the river spreads out again and forms a narrow lake, on which a steam-packet plies. Like that upon the Miosen, it is well filled; the fares being low, people contrive to find occasions for travelling. I was overtaken here by my friend the salmon-fisher, who drove up in company with Mr. Gould, the ornithologist, and Wolff, the great bird-painter. The two latter had commenced their experience of Scandinavian hardships by a sojourn with Mr. Bidder at his farm, before referred to; and doubtless had suffered such privations as Englishmen, especially naturalists, generally do when they meet together under such circumstances.

At Christiania I had been led to believe that the roads were so bad, that only the light carrioles made on purpose, and sold to Englishmen at Christiania, could travel on them; but here was a four-wheeled contrivance, drawn by two horses, and carrying four people besides the driver and a quantity of luggage. An English stage-coach, with full complement of passengers, might travel all the way from Christiania to Trondhjem; the road is very hilly, but not more so than some parts of North Devon, where stage-coaches are still running. The chief advantage of the carriole is its lightness;

where there are many fiords to cross, it is the most convenient vehicle, as it can be easily put into a boat. It is simply a light car, the body shaped rather gracefully, like the bow of a boat with the keel planed off, or a college-cap with the square trencher cut off, then inverted and cut in half cross-wise by the ears. There are two long, thin shafts, with two wheels at one end and a pony at the other. The prow-shaped car is placed upon the shafts (with its bows backwards, of course), between the wheels and the pony. One person can just sit in the half-bowl; he disposes of his legs as he may, either arranging them horizontally on the shafts, or dangling them in the small space between his seat and the pony's tail, or otherwise, as his ingenuity may suggest. His centre of gravity is situated over a point about one-third the distance between the axle and the bearing of the harness; and therefore the pony supports about one-third of his weight on horizontal ground, the elasticity of the shafts serving as a spring. His luggage is placed on a flat board, nailed to the shafts over or a little behind the wheels. A small boy, who has to take the horse back to the station, usually stands upon this board, or the luggage, and these to some extent counterpoise the weight of the traveller and diminish the pressure on the pony's back.

Enthusiastic Englishmen usually purchase a carriole at Christiania, and add considerably to their travelling griefs thereby. Carrioles, or something of the sort, may be hired wherever there are roads for them to run upon, at the rate of one farthing per English mile,

including harness. As there is so much water travelling either on lakes or fiords in all parts of Norway, the carrying of his own carriole on the water usually costs the tourist more than would the hire of carrioles for the whole of his land journey, although the charge for carrioles by boat is very small. The only advantage of a private carriole is, that the trouble of strapping and unstrapping the luggage at every station is saved.

The sail up the lake of Losna is very beautiful. The lake is an expansion of the river Logen, and about the same width as the Rhine; the scenery is not unlike the grandest part of the latter, where the hills are too steep to be disfigured by the ugly vine-sticks and terraces. The charge for a carriole to Elstadt by the steamer is 15 skillings; for a passenger, 36 skillings.

Having neither luggage, horses, nor carriage, to look after, I started some time before the rest, and was not overtaken by the four-wheeler until about half way to the next station, which is twelve or thirteen miles on. I arrived there before they left, and dined on raw ham, ale, and "*fladbröd.*" This fladbröd is a remarkable substance, composed of bruised oats cemented together by some means, and flattened out wonderfully. It differs considerably from Scotch oatcake, being very much thinner, darker coloured, and more chippy; and is more like the material of which hat-boxes are made than anything else I am acquainted with: if you strip the paper off a hat-box you will find that it is not made of cardboard, as it appears to be, but of a thin veneer of wood; eat a small quantity of this veneer, and you will be able

to form a very fair idea of the flavour of fladbröd; only the fladbröd is rather more crisp and a little less resinous. It is made into circular discs from 18 inches to 2 feet in diameter; and a hungry man, who is fond of it, can consume several square yards at a meal.

The view from the upper windows of the Oden station is most magnificent. The station is a large and good one, but rather embarrassing to an Englishman who brings his hotel notions with him, for there are no bells, no waiters, no servants. Like such stations generally, it is composed of several wooden buildings: the dining-room is one of these, and the kitchen is over the way; therefore if you want food or drink, you walk across the road and fetch it. You may hammer on the table if you please, but having the whole building to yourself, nobody hears you, or if any of the natives do they take no notice, for they suppose that you are playing a tune for your own amusement. And yet they are not uncivil—no, nor inattentive; they appear to have a theory that people with arms and legs can help themselves, and they allow them to do so.

Englishmen are objects of great wonderment to the Norwegians. The steward of the steamer told me of an English lady who has a farm hereabouts, who rides bare-backed horses, and cuts her own timber in a silk gown; and of a Sir Something Somebody, who hired a special steam-packet in order to avoid meeting five people he had travelled with; also of another Englishman who for some years past has lived in a lonely hut with no other associate than an old woman, his housekeeper; and who

spends all his time in hunting wolves and bears, and does not catch any.

Arrive at Vik station rather late. The distance is about twenty-three miles from the landing-place, and the scenery very fine all the way: vast cultivated slopes, of the same rich verdure as the banks of the Miosen, with wooded knolls and islands on the winding river. Near to Vik the hills form a magnificent amphitheatre, a fitting council-chamber for a conclave of giants, the mountain opposite representing the speaker's rostrum.

I found the salmon-fisher and the rest of the party here, and was rather inclined to crow at having done as much on foot as they had with post-horses.

Breakfasted next morning on fried slices of trout of extraordinary size, as large as our largest sized salmon, of deeper colour than salmon, and remarkably full-flavoured. The trout are, I believe, caught in a neighbouring lake. Paid 1 mark 12 skillings, or 1*s.* 4*d.*, for supper, bed, and breakfast.

Walked on through a straight valley, into which several lateral valleys open, each contributing a stream to the main river, which at one place, near the battle-ground of Kringelen, forms a small lake. It was here that Colonel Sinclair and his band of Scotchmen were killed while marching on their way to Sweden in 1612. He was buried in the church of Quam close by, and a monument erected to his memory stands by the road-side: it is a small stone pillar, with a carved top, and no visible inscription.

Near to Laurgaard, just before reaching the bridge, the road passes over the lower part of a huge heap of great masses of stone, some of them blasted for road-making. They are for the most part angular, and present every appearance of a terminal moraine. This is especially the case to the left of the spot where the road passes over it; the heap comes abruptly upon the green-sward, with a rounded swelling outline, just as though pushed forward by some force from behind. Had the stones fallen from above there must have been an abundance of stray boulders of the same kind beyond it. Farther up the western branch of the valley there are long heaps high on the hill-side, forming a ridge; these heaps, like that by the roadside, are too abrupt at the sides to have fallen from above, for had they come down with a falling impetus they could not possibly have rested there. Professor Forbes does not appear to have observed them.*

* Speaking of the Dovre Fjeld, which is some 2,000 feet higher than this, Professor Forbes says: "I looked with attention for any traces of glaciers, either by wearing and polishing the rocks where they came into view, or in the deposition of moraines, but I saw nothing very decisive of either kind. The friable and slaty rock is not favourable to the preservation of impressions of the former class, which are rare and ill-defined; nor are the mounds of stones, which are abundant enough, sufficiently characteristic to deserve the appellation of moraines. They are, indeed, sometimes disposed in elongated flat-topped ridges; but this is due, if I mistake not, to the eroding action of torrents which have gradually undermined them, leaving abrupt *talus*, which at first sight resemble moraines, but which, in their present form, it is difficult or impossible to identify. The surprise which I at first felt at observing no more distinct traces of ancient glaciers diminished afterwards, upon reflection that had such glaciers existed they must have covered contemporaneously the

whole of the vast extent of the Dovre Fjeld; that if they could have moved over such inconsiderable slopes, the motion must have been nearly insensible;—that the traces of such ancient ice-formations (if they existed) must be sought in the deep valleys or outlets of the fjeld, where the true glaciers must have protruded themselves from under the snow line with a considerable declivity," &c. ("Norway and its Glaciers," pp. 24 and 25.) These remarks apply to the Dovre Fjeld, the great plateau about 2,000 feet above Laurgaard. The heaps I have referred to may be the moraines of such true glacier outlets, the valley above Laurgaard being an outlet to the Dovre Fjeld; or they may be moraines of a glacial outlet of a similar ice-field on the Sogne Fjeld, the glaciers from which may have flowed down the valley to the west of Laurgaard. I regret now that I did not devote a little time to the careful examination of these heaps. It will be worth the while of a future tourist who is interested in this subject to do so; to ascertain accurately the extent and course of the ridge of blocks, and their mineralogical character, and to ascertain whether they correspond with the mountains immediately above them, or with those nearer to the Dovre Fjeld or the Sogne Fjeld. If these be true moraines, and others of a similar kind be found, and traced to the Sogne and Dovre Fjelds, these great plateaus must at one time have been similar to the present Jostedal and Folgefond snow-fields, which thrust their icy torrents down lateral gorges into the valleys below.

CHAPTER III.

First taste of Norwegian hardships—The peasants' supper and bedroom at Laurgaard station—A misunderstanding, a reconciliation, a supper, bed, and breakfast, all for fivepence halfpenny—Irrigation in the Guldbrandsdal—A sandy region and its probable origin—Bilious hospitality—Cheating the hostess—The Dovre Fjeld—The naturalist and the sportsman—Science *versus* the Classics—The kitchen at Jerkin—Schneehoetten—The ravine of the Driv—Norwegian beer—Some etymologies—Luxurious wild flowers—Porridge etiquette.

I STOPPED at Laurgaard station, and was shown into a rough sort of kitchen, with tables, benches, loom, and a fireplace under a canopy of brick or plaster. An old woman was sitting coiled up at the fireside, hybernating apparently. At one of the benches were some young women and a dirty man eating what looked like Roman cement, out of a wooden bowl, with wooden spoons, each digging a spoon into the composition by turns. Along with the cement they were eating some yellow, crisp, corrugated pancakes.

On my entrance they all stared and stopped feeding, the old woman uncoiled, and discontinued hybernation. They then consulted together, and presently brought me fladbröd and rusty raw bacon. The dirty man having just finished his meal gave me his knife, first sucking it clean, and making a bow as he presented it. The girl

sucked another knife, and put it away ready for the next comer. I ate a few square feet of the fladbröd and left the bacon. A Scandinavian piece of antiquity was then handed to me; it was a wooden tankard, or rather bucket, capable of holding about three quarts, having a carved cover, the sides plain, and about three quarters of an inch thick. It contained beer, but as the dirty man had just been drinking out of it, and sucking the thick wooden edge as he did the blade of the knife, I refused the antiquity and asked for water. This was brought in a basin, the same sort as is usually supplied in these parts for washing.

After supper I was shown into a dirty double-bedded room, the dirty man lying on his back smoking in the best bed of the two. The bed left for me was a kind of stout coffin, or egg-chest, with some straw covered with canvas for the mattress, and a dirty rug for the covering. The bed was placed close by a window and exactly over the head of the bed, and about eighteen inches above it was a broken pane of glass; a piece of paper was pasted over the hole, but it only adhered by the upper part, the rest forming a flap which accurately directed a jet of air upon the place to be occupied by the head of the sleeper. The window faced due north, and the wind was blowing from the north with occasional showers. I laid down with my clothes on, to avoid contact with the earth-coloured canvas, and dirty rug. I tried to move the bed, but could not; tried to stop up the window and failed. The prospect of earache, stiff neck, and rheumatism in the shoulder, being

imminent, I reluctantly gave it up, and determined rather to sleep out of doors altogether. Accordingly I returned to the kitchen, inquired how much to pay, and asked the distance to the next station. This produced a general turmoil throughout the establishment. The old woman uncoiled again, and entered into a state of complete consciousness; the dirty man got out of bed, pipe and all, to see what was the matter; the girl disappeared, and presently returned with a comparatively clean male, who appeared seriously concerned at my discontent, and said something in a scolding tone to the old woman; he then showed me to a state bedroom, where all was clean and comfortable enough. I accepted this accommodation, and slept soundly.

At about six in the morning the old woman, completely roused from hybernation, entered my room with a bewildered aspect and suggested coffee, which the young woman brought immediately. At every place where I had slept since leaving Christiania a small table stood by the bedside, and early in the morning a young woman entered without any of the preliminaries of knocking, and placed upon the table a bowl or cup of strong coffee, and a bowl of cream; both of which I dutifully consumed before getting up, though I dislike breakfasting in bed. This, however, is not considered breakfast, but merely an awakener; breakfast, or *frokost*, being provided afterwards.

I am doubtful whether to regard this as a Norwegian custom, or to suppose that the first English tourist who visited Norway was a luxurious animal and insisted

upon coffee in bed, and that the natives have concluded thereafter that such is the common high-life habit of Englishmen, and indulge every Englishman accordingly. With the exception of myself, all Englishmen who travel in Norway are regarded either as lords or members of Parliament; and it was evidently because I was not supposed to be either of these, but rather a travelling tinker, that I was located in the peasant's lodging-room last night. The regular tariff for that sort of lodging is two skillings—rather less than one penny per night.

I had fladbröd after the coffee, and received very anxious attention from all parties: being evidently considered an M.P. this morning, the people of the house were most desirous to conciliate, supposing me to have been much offended the night before. This, of course, was not the case; for, in spite of the dirt, the knife-licking, and the rheumatic window, kindness and good-will were evident throughout. If a traveller enters an inn with muddy hobnailed boots, incomprehensible rough flannel clothes, and a pack on his back, he must expect to be taken for a tinker; and if he is treated with kindness under those circumstances, he has stronger reason to be grateful than if he had been preceded by a courier with a bag of money. There was more true politeness in the act of the dirty man when he licked the knife so carefully and presented it with a bow to the poor tinker, than in the smirking obsequiousness of the smartest waiter at Mivart's when receiving a newly arrived prince. He

knew that I should pay him nothing for licking the knife; but in doing so he did his best, according to his notions, to make it luxuriously clean and agreeable to me. I paid for supper, bed, and breakfast twelve skillings, or about $5\frac{1}{2}d.$; then walked on through a wild alpine gorge with a roaring torrent far in the depth below. After passing this gorge, which terminates at the next station, the valley widens again and the scenery changes entirely.

Below Laurgaard the rich verdant slopes form the leading characteristic. This verdure is sustained by very careful irrigation, which is one of the most remarkable features of the farming operations hereabouts. Long troughs are made by scooping a hollow in the stem of a pine-tree; one of these is laid with its thicker end close to a mountain stream, and the water directed into it. This trough is laid along the ground with a slight inclination towards its thinner end, which rests in the hollow at the thick end of the next trough, so that the water flows over from the first into the second. This arrangement is continued, and a little aqueduct formed: one of these aqueducts runs along the upper part of every field, or range of fields. To use it, the farmer, or one of his housemen, brings a wooden trough, not channelled through as the aqueduct logs are, but with a ledge all round, so that it can form a little pool of water. He places this just above the part he is about to irrigate, breaks the aqueduct by lifting the channelled log nearest to his pool trough, and directs the stream into it. Usually he has to shift several logs in order

to bend the aqueduct down to the required spot, but he does this very speedily by lifting each log at one end and giving it the required inclination. The water now fills his wooden pool, and with a long wooden scoop he flings a refreshing shower far and wide upon the rye, oats, barley, pasture grass, or potatoes. Every foot of the field is scrupulously watered thus, and when a number of the waterers are at work, the bright semi-circles of sparkling drops flying through the air in every direction make a cheerful and pleasing sight for the pedestrian.

Beyond the station above Laurgaard, where the valley widens again, there are curious sand-banks extending on both sides of the valley. These are cut through by the lateral streams, and have the appearance of the earthworks of a huge fortification. A head wind was blowing, which carried dense dust-clouds with it, and I pitied those travellers who are riding in carrioles, seated so low, and at just the right distance behind the horse to catch the main body of dust that he kicks up.

The river must formerly have spread over this valley, depositing the sand where its waters were quiescent. At the same time, it was cutting its way down the gorge above Laurgaard, till it drained the lake its widened waters formed, and reduced itself to its present channel.

I examined the sand, but found no shells in it. It is very fine and uniform, in all respects resembling the sand that is commonly seen to whiten the streams that

issue from the foot of glaciers, and is deposited as soon as the torrent meets with a quiet spreading place below. Shells are not likely to occur in such a deposit, the waters being too newly thawed and cold to suit that kind of animal life.

Stopping at the new station of Dombaas, I met an English lady and gentleman with a "*tolk*," or interpreter. The hostess was the perfect embodiment of womanly goodness: just the sort of woman that every man must instinctively liken to his own mother. The English lady was in delicate health, and had but a small appetite. This was desolation to the soul of our good hostess, who had exhausted nearly all the resources of Norwegian cookery, and was almost broken-hearted at finding that her fair guest did not consume every dish. She evidently supposed that the lady was dissatisfied with the delicacies she had prepared, and that the plea of illness was only an excuse. We were all amused and concerned at the good woman's anxiety; but the most amused of all was the *tolk*, for he devoured all the nice things the lady and her husband were unable to grapple with. At last, came the crowning effort of the kitchen; some porridge made of fine meal, boiled in milk, coated with sugar, and over that a pool of oily butter, all boiling hot. This was brought in triumphantly; and I foresaw plainly that if this failed, the good woman would have no sleep that night. The fair patient, with the amiability of a woman, and the self-denial of a martyr, ate two or three little spoonfuls; but human nature could no

further go. What was to be done? for the hostess, thus encouraged, had now evidently determined that her guest should eat the whole, though there was a good-sized Staffordshire-ware willow-pattern pie-dish full. Suddenly we hit upon an expedient which our unknown tongue enabled us to organise and carry out. It was that the *tolk* should stand behind the lady's chair, so that he could reach the pie-dish over her shoulder, and while I diverted the attention of the hostess by asking for something, he hastily, and with great glee, helped himself to piled-up spoonfuls of the porridge. Thus every time the good old lady returned, she found the porridge diminished, and was delighted with her success; manifesting her glee by patting her guest on the back, and exclaiming, "*ikke sick! ikke sick!*" (not sick! not sick!) Thus all parties were gratified; especially the *tolk*, who was grinning with delight for the rest of the evening.

Reached the Dovre Fjeld next day. It is a vast undulating moorland between three and four thousand feet above the sea level. It has no particular claims to the picturesque, and the absence of great rocky masses deprives it of any savage grandeur, though it is sufficiently desolate. The tints of the reindeer moss, or rather lichen, which abounds, are in many parts very beautiful; especially where a rounded heap of earth-covered boulders is overgrown with it. It is dry and crisp, forming a luxurious mountain couch; its colours vary from straw colour, through a pale buff, to a bright

orange and warm red brown. Its habit is to grow on the dry well-drained spots, while peat moss occupies the swampy localities.

Though early, I halted at the Jerkin station, which is the largest and most famous on this highway from the modern to the ancient capital of Norway, and found it a bustling, rather business-like place: a Norwegian modification of a Swiss hospice. Most sporting tourists make it a resting-place for some days, game being rather abundant on the Fjelde.

I found Mr. Gould hard at work, skinning and preparing his day's spoil, which was very considerable; a young bird I had caught on the way was added to the collection. I was surprised at the variety of birds Mr. Gould had killed; he had, in mere numbers, more than double the amount of what an ordinary sportsman, accounted a crack shot, would consider a good day's sport hereabouts. The skilful naturalist, without any of the paraphernalia of sporting—no pointers or setters with wonderful instincts, nothing but a very old-fashioned looking gun, and the bare requisites for making it go off—comes to the place for the first time in his life with a predetermination to shoot particular kinds of birds only, and those of particular ages; he walks straight to their haunts, and shoots nearly all he seeks, and beats the mere bird-slayer who bangs at everything he sees. How any man can be a sportsman without being a naturalist, I cannot understand. Such a phenomenon would, I suspect, be unknown, if in the curriculum of our great Universities science and natural

history, the laws and phenomena of creation, were made the leading objects of study, instead of the obscenities of Jupiter and Co. and the poetic laudations of Roman rapine and Greek treachery: all of which might with much advantage be buried in the darkness of popular oblivion, and the keys of their sepulchre left in charge of a few special antiquarians. The languages in which they are written—or, at any rate, the stilted, pompous Latin that has been so long dead, might now be buried also; and the mental health of our modern youth would be much benefited by such disposal of the carcass. The fact that a language, spread by conquest to such an unprecedented extent, should so soon have died, and died so hopelessly, in spite of popes, and priests, and pedants, is a proof of its inherent unfitness for human speech. The sweet and vigorous Italian, and the gorgeous Spanish, which have risen from its ashes, are as much superior to the dead parent as modern social institutions are to those of ancient Rome.

Among the birds Mr. Gould had shot, were some that live in England during the winter, and come to Norway for their summer vacation. Like our own species, who visit the fashionable holiday-places, these birds adopt bright varied colours for their summer dress; and to secure and preserve them in their summer costume, was, I believe, one of Mr. Gould's special objects in visiting Norway.

At this place I had an actual dinner, off a joint of roast veal, with rich sauce and potatoes, besides

several kinds of bread and pancakes, and concluded luxuriously with *café noir*, arm-chair, and slippers.

The night is perceptibly lighter here than at Christiania, and very cold.

At Jerkin I had a most extravagant southern breakfast of coffee, fried eggs, dried salmon, a kind of polpette, that Pietro, the renowned waiter of the Lepre in Rome, would be proud of serving, and some of those yellow, cross-bar, wafer-like cakes that are cooked by squeezing batter in a hot iron mould, and then sprinkled with white sugar from a pepper-box; such as are sold in large quantities on Sundays at the barrière wineshops of Paris, and are made at the penny ice establishment in Hungerford Market.

The kitchen at Jerkin is justly celebrated. It is a large wooden hall, a log saloon, whose rich brown smoke-tinted timbers and its blazing fire, where something is always frying, forms a most enjoyable contrast with the bleak waste outside. Every experienced tourist of good taste prefers to do all his feeding in this kitchen, and leaves the fine room over the way to the inexperienced visitors. It is exceedingly difficult to leave off eating in such a place, prepared as the appetite is by such an atmosphere, and incited continuously by the hostess, whose sole happiness evidently consists in feeding people. She oscillates perpetually between the fire and the guests, aided by a couple of sweet satellites, the most rosy-cheeked of kitchen-maids. Never a driver leaves the door, but the black bottle is brought

from its lurking-place, and a toss of the head, a smack of the lips, and the Norwegian grasp of thanks follows. Even after this, two or three deep inspirations may be heard, showing further how the drinker appreciates the liquor by making the most of the vapour that still lingers in his throat. I felt strongly tempted to stay another day here; but the midnight sun in the far north will not wait for me, so I resolutely pushed on; bidding a temporary farewell to my English friends, and a long one to the model hostess and her memorable kitchen.

I had almost forgotten to mention the beautiful flowers that decorated that kitchen: every window was filled with them, and all were in full blooming condition. They were not mere Alpine plants from the Fjeld outside, but bright southern exotics, that must have been brought here with considerable care and expense, and cannot be retained, in such a climate without much attention. There were flowers at several of the other stations, but not equal to these. My bill for dinner, bed, and breakfast amounted to 2 marks, or 1*s.* 9*d.*

Walking on over the Fjeld, the view of Schneehoetten is rather fine from its highest ridge. This mountain, long regarded the highest in Norway, is not so imposing as might be expected from its height, 7,620 feet above the sea; but it is only 4,500 feet above Jerkin, and 3,520 above this point, which is 4,100 feet above the sea level, and said to be the highest carriage-road in North Europe. The ascent

appears very easy from here, a long ridge stretching gradually down from the summit, like Goatfell in Arran. But appearances from such a distance are little to be relied on, especially about the region of the snow-line. Professor Forbes, who is no novice in mountaineering, describes the ascent as very troublesome, on account of the deep sludgy snow-pits between the boulders.

The road now plunges into a deep valley, in company with the river Driv, which roars and foams among the rocky masses that restrain its course. The amount of water at this elevation gives evidence of the extent of the Fjeld, and the quantity of snow that is thawing around Schneehoetten. Many small lateral streams pour into the valley, cutting deep gullies in the rocks over which they fall. Several of these flow directly from the patches of snow that fill the hollows above. There is a curious and very pretty effect produced by a peculiar conformation of the mountains on the other side of the river. Each ridge of rock runs down nearly parallel with the valley, and forms a long, slender-pointed, high-backed promontory; one side of these promontory ridges is nearly perpendicular, and thus a little blind glen is formed, into which the rocky promontory would about fit if it were reversed. These glens are evenly curved and smooth, covered with rich grass, and dotted with shrubs and Lilliputian birch-trees. They are very numerous, much alike, and occur at rather regular intervals, giving quite a character to the valley, and contrasting beautifully with its general

wildness: any one of them would form a subject for a charming little picture. The scenery is very grand all the way down this ravine to Drivstuen. The river makes some fine cascades, and several minor ones are formed by the streamlets that tumble from the snow-patches.

The character of the scenery changes below Drivstuen; where, instead of wild, broken rocks, the road passes over an almost park-like greensward.

I dined at Drivstuen on eggs, ham, German-sausage, and milk, for which I paid 8 skillings, about 3½*d.*

The new road referred to in Murray's Guide, and by Professor Forbes, as being commenced, is now complete, and is a very excellent one; entirely avoiding the tremendous ascent of the old road, which still remains, and is quite a curiosity in its way.

I was overtaken by two English tourists, and overtook them again at Drivstuen. One of them was a fine specimen of a sturdy old traveller; the other a young man, with a green veil, which was evidently a relic of the last Derby day. I should advise other tourists, who intend travelling by carriole, to provide themselves with similar veils, for the dust in some parts of these roads must be choking when sitting so near to the horses' heels.

Stopping at Rise, a neat and rather smart station, I asked for some "öl" (ale) with my supper, which was brought to me. It was a turbid liquid, of a reddish green colour, and from its flavour appeared to be an infusion of hay, flavoured with a bitter decoction of pine

knots. Possibly it was the beverage made from the *molte beer*, a large red three-lobed berry, that grows wild upon the hills. The ale made from malt and hops, which is so commonly drunk on the other side of the Fjeld, appears to be a modern innovation; it is called *Baiersk*, the Norsk for Bavarian, and is remarkably good. Beer made from berries is as old as history, and I suspect that the beer of our own country was of this kind, before the process of malting was discovered, and that the name is derived from "*beer*," a berry; probably the word malt is derived from *molte;* for the sweetened barley, being used as a substitute for the sweet tasting "*molte beer*," would naturally receive its name.

Breakfasted on eggs and ham, which to-day I had "*steaked*," *i. e.*, fried. The learned in words tell us that our word *steak* is derived from the German "*stuk*," a lump or slice; that a beef-steak therefore means a *slice* of beef. Nothing of the kind: a beef-steak originally means beef fried or broiled, or to be fried or broiled. The continual use of the verb *to steak* here forces this etymology upon one; and the use of the word steak in the north-east parts of Scotland—where a slice of salmon, if broiled, is called a salmon-steak, but a similar slice boiled is no steak at all—confirms this view. *Lax*, the Norwegian and Danish name for salmon, is still used occasionally in that part of Scotland. The Norsk verb *to boil* is "*Koge*,"—anything boiled is "*Kogt*," pronounced *cooked:* the *g* being generally hard, like *k*. Scholars refer us to *cuocere* for the origin of our word.

The coffee and thick cream was brought, as usual, to the bedside, and with it some wafer-cakes. Now, knowing sufficient Norsk to make myself understood, I had the coffee carried back, to be taken with breakfast. I did not venture to ask for this until quite satisfied that I had got up the requisite phrase with intelligible pronunciation, lest I should be misunderstood, and the coffee taken away altogether.

My next day's walk was through a rich cultivated valley, with snowy mountain peaks ahead. Murray says that Schneehoetten is visible here, but unless my map and compass deceive me considerably, this must be a mistake.

A little before reaching Ovne or Aune station, there were some of the most magnificent banks of pansies I ever beheld. Several patches of above a hundred square yards were covered with an unbroken carpet of these beautiful little flowers; the variety, richness, and harmony of their colours was most exquisite; they saturated the atmosphere far around with a delicious aroma, which was almost intoxicating in its concentration when I laid down upon them and slept for an hour or two; the sunbeams poured upon me with a roasting heat, the rooks were cawing above, and the river rumbling below; though yesterday and this morning it was freezing, and the snow patches were still visible in all the hollows of the craggy rocks above. I dreamed of oriental vapour baths, otto of roses, and beautiful princesses just imported from the snowy Caucasus, and selling by auction in Covent Garden Market at a few skillings per dozen.

Schnechoetten is visible near Stuen, about fifteen miles below the place where Murray speaks of it. It is a more picturesque object from this point than from the Dovre Fjeld. A number of other snowy peaks are also visible.

The women hereabouts wear a sort of cuirass of printed cotton, the black silk cap or *lue*, that has prevailed all the way from Christiania, and short white sleeves. The boys have strange skull-caps, with immense, straight, square peaks, which, projecting stiffly forward, just balance the long, straight, tow-coloured hair that hangs correspondingly behind. The men wear red nightcaps when at work in the fields, but on great occasions they are surmounted by beaver hats, evidently inherited with the farms, and having the large crown, hollow walls, and brim turned-up at the sides, of the days of Beau Brummel and the Prince Regent.

I dined at Stuen in the kitchen, where four girls were dining at the same time. Between each two was a wooden bowl containing a sort of thin porridge or broth; they sat at arm's length from the bowl, and breaking off a chip of fladbröd, which they broke again and made into a bunch of several layers, they stretched out their arms and dipped the fladbröd into the curd; then describing a long sweeping curve with the hand, put the bunch of fladbröd into the mouth, where it disappeared. They all made precisely the same movements; yet I saw no reason why they should sit so very far from the bowl, or why the hand should not be brought straight to the mouth: probably it is a matter of etiquette and good-breeding;

the sweep of the arm certainly is rather graceful, though somewhat pompous and bombastic. The short S-shaped wooden spoon, common hereabouts, is used with the same action. Perhaps the custom may have originated from one of their forefathers having, at a remote period, dined at a German table d'hôte, and sat next to a fat burgomaster, who commenced proceedings by tucking his napkin into his cravat to form an apron, then placed his face horizontally over his plate like a pig at a trough, and shovelled the viands into his mouth, which retained one-half and let the rest fall into the plate again. A simple-minded man, who had witnessed such a spectacle, would go straight home and teach his children ever after to keep their platters at arm's length, and practise the virtue of self-denial by making their food take a long deliberate journey on its way to the mouth.

My dinner of eggs, milk, and cheese, cost 8 skillings, or 3½*d.*

CHAPTER IV.

Domestic economy—Farmhouse stations—English salmon-fishers—Rental of rivers—Norwegian notions of English sportsmen—The Valley of the Gula—Different kinds of valleys—The industry of rivers—Terraced valleys—The upheaval of Scandinavia—Wedding festivities—"Tak for mad"—Costume—The approach to Trondhjem—Universality of politeness and good-breeding in Norway—Influence of an aristocracy.

THE scenery is very fine in the neighbourhood of Sundseth station, a deep alpine valley, with rounded wooded hills in the distance, forming huge billows of pine tops.

On crossing the bridge near Bierkager I found that my map* is quite incorrect, the road there being laid down as continuing straight on northward, while there are actually two roads of equal width; one bearing N.E., the other N.W., and a sign-post, inscribed "*til Trondhjem*," pointing indefinitely midway between the two roads, but rather leaning to the left; therefore I took the left road. It was late, and I had walked about thirty miles already. After going some two or three miles farther and not reaching the station, I took the bearings, and found that the road trended far too much to the westward; for, instead of making N.N.E., I was

* Waligorski's road map—"Veikart over Norge af J. Waligorski og N. Wergeland."

going W.N.W., evidently down the Olkedal, which leads to Trondhjem by a more circuitous route.

Turning back, I made inquiries at the first house, by knocking at the window. Though nearly eleven o'clock it was not dark, and a bed was visible close to the window; and it rather surprised me to see three heads start up out of this bed, two belonging to men and one to a woman. Whether this sort of sleeping arrangement is the custom of the country, or of the district, or was a special peculiarity in this case, I am not able to decide; but it does not accord with Laing's statement relative to the careful separation of the sleeping apartments of the sexes in the rural districts of Norway. That they were sleeping thus in all innocence, without any idea of impropriety, was evident from the manner in which one of the men reached to the window and opened it; all of them joining very kindly in telling me the way and the distance to the station. As the Norwegian bedstead is an oblong wooden box, this might possibly have been a double bed, a box with a partition down it; the two men lying on one side and the woman on the other, or two boxes side by side: but I did not see any partition.

Arriving at Bjerkager station at about midnight, after some difficulty I awakened an old woman, who led me first to an air-tight room, where several men were sleeping in a frightful atmosphere; then to another, where she aroused a young woman, who prepared my bed, and gave me some supper of bread and butter, milk, and pancakes. In most places people would be sulky and ill-tempered at being roused at such unseason-

able hours, but it is not the case here; I was served with as much alacrity and good-will as though I had arrived at the usual time.

All these stations are farmhouses, composed of several wooden buildings; and it is sometimes a perplexing task to find out which is intended for travellers. One is usually a kitchen, another a lodging-house for peasants; some are filled with hay, others are furnished for the accommodation of cows, &c., while externally there is but little difference between them. In this case I found the doors of all unfastened, and walked into two or three before finding anybody. I should have helped myself to a bed I found in one of the buildings, but being intolerably thirsty, and unable to find the well or any vessel containing water, was compelled to awaken the establishment, which could only be done by dint of a terrible amount of rapping and rattling.

The main object of thus building a farm in detached fragments is that, in case of fire, the whole may not be destroyed: a wise precaution with such building materials. According to Mr. Laing, the cost of a house, "with two rooms below and two above, does not usually exceed fifty dollars, wood and workmanship included."* They are built in manner before described, p. 3.

The road beyond the station commands fine views of the valley, a deep ravine thickly wooded with fir-trees, and the river dotted with pine-covered islands. There are many indications of glacier action hereabouts

* "Residence in Norway in the Years 1834–35–36:" by Samuel Laing, p. 29.

similar to those in the valley of the Driva, mentioned by Professor Forbes, but more extensive and decided.

The rich verdure of the Guldbrandsdal prevails over the greater part of the country through which I have walked to-day, and the fields are carpeted with sweet flowers as those of yesterday. I little expected to find this element of beauty so generally prevalent here in the far north.

On arriving at Soknaes station, I was surrounded by a group of inquirers, who, on ascertaining that I am an Englishman, told me that two Englishmen are residing here; one of whom came forward and invited me to his room. He is a devoted angler from Oxford, who has spent several summers in Norway, and is well acquainted with the language and the country. He and a friend had rough apartments here, the rental of which included the privilege of angling in the river. Before coming to Norway I was under the impression that any one might cast a line where he pleased in the rivers of so wild and primitive a country, but this is not the case; the Englishman's insatiable desire to kill something that can struggle, or is difficult to get at, has brought all the great rivers of Norway into the market: not excepting those within the arctic circle. They are rented by English anglers, sometimes on long leases; and for the best portions of the most celebrated rivers, considerable sums are paid; the usual stipulation being that the angler, besides paying the rent, shall give all the fish he catches, beyond those required for his own consumption, to the farmer.

This amuses the Norwegians mightily, fishing in Norway being one of the vulgar occupations by which men obtain a livelihood. Our laundresses would be similarly amused if Chinese mandarins were to migrate annually to England and pay large sums of money for the privilege of turning their mangles.

I spent a pleasant evening with these anglers, who gave me much information on many matters connected with the social condition of the people. It appears that fly-fishing was quite unknown in Norway until it was introduced by English anglers, and that the Norwegians are now trying to persuade themselves that there is some fun in it; though, as this unusually candid angler confessed, he has sometimes whipped the stream most scientifically all day long, aided with every appliance of gaudy-feathered flies and the most complicated tackle, and has caught nothing; while a little boy, with a common stick, a piece of string, and a hook little better than a bent pin, has filled a basket.

The road now enters the Guldalen, or valley of the Gula, the view down which is very beautiful. It is a rich cultivated valley, the river winding through a fine wooded plain, and round about green knolls and mounds, that have a very complicated appearance seen from above. On descending the valley, and walking a few miles down it, the structure upon which this peculiar appearance depends becomes evident.

There are two very distinct kinds of valleys commonly met with in mountainous countries: one, the long narrow ravine, a mere stone trough, formed by

the rocky slopes of the mountain sides meeting each other at an angle; this angle being more or less choked with fragments of fallen rock, among which a torrent roars. These valleys vary considerably in their features, according to their elevation, the steepness of their sides, and the character of the rock composing them. Some are deep gorges, with barren and almost perpendicular walls; others have a more gradual incline, and their sides are covered with woods or cultivated ledges and slopes. The other is the open basin-shaped valley. This, like all valleys of any considerable extent, gives path to a river or small stream; but if the wide basin-shaped valley be deepest in the middle, as is usually the case, the river fills this hollow and forms a lake, spreading itself out in calm repose after its fretful journey among the rocks above. Thus the Lake of Geneva is the sleeping Rhone; that of Constance, the Rhine reposing in like manner. The Mediterranean is a larger valley filled with waters where many rivers sleep, and the ocean is the main valley of the world, the final resting-place of all the rivers.

There is another modification of this open basin-shaped valley, where a lake of earth, generally fertile soil, takes the place of the outspread river. This is easily accounted for. The toiling river brings a burden with it, which it lays down at its resting-place. So long as it continues in rapid motion, stirred and eddied by the resisting rock, it is turbid and milky with the suspended particles it has abraded from the mountain sides. As soon as it becomes quiescent, these

sink to the bottom, the larger first, and so on; and the river issues from the other end clear and refreshed, ready to resume its levelling labours lower down.

By such a process of deposition are these wide valleys gradually filled up, and then the river flows gently in a long winding course through the rich territory of its own depositing; like an old man calmly enjoying the fruits of his early toil, and contemplating the good deeds of his youth: for the youthful river, in the brawling early days of its mountain life, is doing mighty service to the world in thus converting desolation into fertility. Nearly all the fertile plains of the earth have been created thus by the industry of rivers.

There is yet another kind of valley, partaking of the characters of both of the above: a long trough-like valley formed by the mountain sides, but which widens as it proceeds downwards, and branches into the great valley of the sea. The waters of the sea fill its lower part, and an estuary, firth, or fiord, is formed. These, in like manner, are continually being filled up by the rivers which come to rest in the waters of the sea, and deposit their burdens there. Thus Holland, the masterpiece and last labour of the Rhine, has been formed.

The Gula, into whose valley I now descend, presents some interesting illustrations of these river agencies, and a problem to boot. The mounds and knolls, that appeared so complex from above, are seen from below to be formed by the river cutting its way down to a great depth through the alluvium it has deposited.

This may have been effected in two ways: the deposit may have been made in a lake filling a basin-shaped valley, and the river may have cut down and lowered the channel of its outlet considerably beyond its original depth, and thus have not only drained the waters of the lake, but have given sufficient inclination and velocity to the river, to enable it to carry with it much of the soft earthy matter over which it was flowing; or, it may be, that this was an estuary valley, an ancient fiord, up which the sea stretched an arm, the alluvium being deposited by the river when it entered the sea; and after this was done, the whole valley, mountains, river, and its deposit, were all uplifted by the fiery forces within the earth which battle against the working of the waters outside, raising new mountains while the waters wear the old ones down. Such an uplifting would lengthen the journey of the river, as the sea rolled back from the uplifted land. In its new course, the river would cut through the soft plain over the bottom of the ancient fiord, and continue cutting down till it reached nearly the level of the sea; and thus the depth of the cutting would measure the amount of uplifting.

Throughout nearly the whole of to-day's walk—about twenty-five miles—terraces formed of alluvium were visible. In some parts the river flows at the foot of a steep bank of even slope above three hundred feet high, the top of which is a cultivated or wooded level; at other parts there are several step-like terraces, "parallel roads," as they are called in Scotland. Near

to Meelhaus station I counted five of these, one above the other, and perfectly parallel. From the course of the river and configuration of the valley, as shown in the map, I suspect that these terraces have been formed in an estuary which has been rendered high and dry by an uplifting of the land. If so, all the neighbouring valleys that carry considerable rivers into the sea should present similar phenomena more or less decidedly marked. That this is the case with some of them, I know from reading the accounts of other travellers. It is the general opinion of geologists, more particularly of the local geologists, that the whole of Scandinavia has been uplifted at a geologically recent period. The reader should bear this in mind, and we will look out for any additional indications of the kind that may present themselves in our future wanderings together.

I dined to-day at Leer station. Some excellent ale was brought in a kind of pail the shape of a truncated cone, and capable of holding about a gallon and a half. There had been a wedding some days before, and the festivities had not fairly ceased; this ale I suspect was specially provided for the feast, for the pail was handed about freely to all comers, who were numerous, as there are many farms hereabouts.

Among the many visitors was a party of old folks, chiefly women, who were making a substantial repast, and for the first time I witnessed the old Norwegian custom of shaking, or rather grasping, hands all round. It is done very deliberately, almost solemnly, like a grace after meat. Every one grasps the hand of every

one else, and repeats, "Tak for mad"—"Thanks for food." There were sixteen at dinner, and as every one shook hands with fifteen, and repeated "Tak for mad" fifteen times, there were 16 × 15 = 240 repetitions of "Tak for mad," and 120 graspings of hands.

There was a great display of the Beau Brummel beaver hats to-day, among the men coming from church. They wear frock-coats and hats on Sundays, and dress-coats during the week. Both men and women dress very neatly on all occasions, and the material seems good and substantial home-spun woollen cloth. The men wear dark gray and black, the working-dress being in fact very nearly what we should call evening costume, with the addition of a red nightcap.

I stopped at Oust, a station which has some amount of hotel pretensions, where I had a good supper and bed.

The road now ascends the hills, and commands fine views of the city and fiord of Trondhjem. The city is approached by a line of wooden warehouses very much like the Noah's-ark toys of our childhood made on a large scale: they are close to the water's edge, and appear ready to float off should the water rise. The streets of Trondhjem are wide and clean, with water tanks at the corners, and only a small number of shops, but those very good. It is the universal custom here, as in Christiania, to uncover on entering a shop, and continue so while making a purchase. The idea of treating a shopman as an inferior does not appear to be entertained by any class in Norway. The people here are nearly all well dressed, the ladies very gaily,

with round hats and the latest London—not Paris—fashions. I have seen but one puppy in Norway, and he was one of the passengers in the steam-packet from Hull. He affected aristocratic English airs, and treated his modest fellow-countryman the stone-mason so rudely that the salmon-fisher and I cut him altogether. We found on landing that he was a commercial traveller.

The different classes of society in Norway are not distinguishable by their conduct; for all are quiet, courteous, unassuming, and dignified. An English puppy, as we are all aware, is the most contemptible of the brutes, and a true English gentleman the most dignified of human beings. The Norwegians of all classes exhibit the peculiar external attributes of high English breeding in a very remarkable degree. They are, as far as I have yet seen, the best behaved people in Europe: haughtiness and cringing seem equally unknown among them. It is often argued that an aristocracy is necessary to give by example a high tone to society, but Norway is almost the only country in Europe without an aristocracy or any pretensions to such; unless it be the aristocracy of timber-merchants and fish-salters.

In one sense, it is true, the great bulk of the Norwegian people may be regarded as an aristocracy, seeing that they are the owners by inheritance of the land they live upon.* This, doubtless, contributes

* In Norway, according to Mr. Laing, there is one estate for every twenty-two of the population; while in Scotland, there is but one for every seven hundred.

largely to their quiet sense of dignity and independence; and, coupled with the fact that the nation has never passed through the degrading stage of feudal tyranny and serfdom, may go far to account for these characteristics. It must be borne in mind that while an aristocracy, by its example, diffuses refinement and elegance in society, it also inevitably engenders more or less of snobbishness and flunkeyism among the naturally vulgar-minded and incapable imitators of true dignity and refinement. The peculiar absence of these pitiful vices in Norway is, I suspect, largely attributable to the fact that aristocratic influences—the aping of style, and our prevalent ideas of "station" and "social position"—are so little known.

CHAPTER V.

The Cathedral of Trondhjem—Origin of Gothic architecture—Frost mummies—Start for Hammerfest—The Trondhjem and Namsen fiords—A marine omnibus — Torghatten, and its mysterious tunnel—The Seven Sisters—The Hestmann—A lovesome Giant's mournful story—Grand scenery of the coast—Glaciers of the Fondalen—The natural history of the Great Sea-serpent.

STOPPING at the Belle Vue Hotel, I found my old friend the salmon-fisher there. Mr. Gould and Mr. Wolff were at a private house in the same street, the hotel being full; but we all meet at the *table d'hôte*, where a good domestic sort of dinner is provided. The house is but little like an hotel; for when I arrived I was shown into a small drawing-room, where the mistress of the house, a graceful and elegant lady, received me just as any lady would receive a visitor coming to her house with a letter of introduction: and such is the tone of the whole establishment.

On my way to visit the cathedral I overtook a military funeral, conducted with much pomp and solemnity, and entered the cathedral with the funeral procession; a circumstance which added very much to the effectiveness of my first view of this curious old building. The exterior has a very odd, irregular, and quaint appearance. It cannot be called imposing or beautiful, but there is an air of originality and genuine antiquity

about it that is very interesting. It is true that some of the most quaint and antique-looking portions are the most modern; having been rebuilt after fires, and the old materials put together without any particular reference to what they were intended for: columns being let into walls for mere ornament, or placed on niches as though they were statues. I should like to bring an archæologist who knows all about the symbolism of Gothic ornament, and can fix the date of an edifice by the shape of its arches, to this building, and set him to read it without any knowledge of its recorded history: he would make some magnificent blunders. I suspect that Mr. Laing is quite right in stating that "it shakes the theory of Saxon and Norman, the round and pointed arch having been used exclusively in particular and different centuries, and affording ground for determining the comparative antiquity of Gothic edifices. The Norman arch in its most florid style is connected with the Saxon in its most simple and massive form, in a building where the known date of the portion containing this admixture is more ancient than the ascertained date of those English edifices from which the theory is derived."

Were I an archæologist, I should regard this building as worthy of a special pilgrimage and the most minute and careful study. If the original design could be fully made out (and the materials for working it out are in existence), I suspect that it would throw more light upon the real origin and history of Gothic architecture than any other edifice in Europe. It appears to

me to form a connecting link between the Mosque of St. Sophia and our more recent Gothic edifices. The idea of deriving the pointed Gothic arch and *nave* from the old Scandinavian shrine, or sarcophagus of the sea-kings—a ship hauled ashore and placed keel uppermost—is most feasible; for if instead of placing the inverted ship upon natural pillars of the craggy coast-rocks of Norway, a wooden roof with beams, ribs, &c., shaped like a ship's hull, were placed on a Byzantine colonnade and arches, with a rude Byzantine cupola at the stern end, we should have exactly what appears to have been the original form of this shrine and sarcophagus of the converted and canonized old Scandinavian king, St. Olaf. The date of its construction extends from about 1033 to 1248.

It may be thought presumptuous on my part to express an opinion, having only read the stone records, and none whatever of the many printed treatises on the subject; but still I cannot refrain from protesting against the practice of applying the name of either Saxon or Norman to the rounded arch with the zig-zag ornaments and squat columns, with capitals that all differ from each other in everything but the common attribute of ugliness. These in all their varieties are unmitigated Byzantine barbarisms: the architectural refuse of the decaying Roman empire, they are but bad copies of what we may see yet remaining in Constantinople, in the subterranean temple, or rather reservoir, of the thousand and one columns, and in the Mosque of St. Sophia.

Every tyro in the history of art is aware that up to the thirteenth or fourteenth century—the era of Cimabue, Giotto, Van Eyck, &c.—the art of Europe was almost exclusively in the hands of a few wandering Greeks; the little that was done in painting, sculpture, and architecture was done by them. Cimabue, Giotto, and their contemporaries, copied the Greek artists, with their gilded backgrounds and Guy Fawkes attitudes, and other Byzantine absurdities and beginnings of beauty. The original gilded mosaic ceiling of the St. Sophia, now covered with whitewash, and falling in fragments upon the thick bed of pigeons' dung on the floor,* may be taken as the prototype of the painting and mosaics of that period; and the architecture of the mosque is as obviously the prototype of everything in both Saxon and Norman architecture, excepting the nave and its ship-shaped adjuncts: the pointed arch and doorway being but a transverse section of a boat or ship, keel uppermost.

The early Christian missionaries adopted the dates and many of the ceremonies of pagan festivities, as well as the forms and symbols of their worship, but gave

* Pigeons are cultivated in the vicinity of all the mosques. When I visited the St. Sophia, the pigeons were flying about the interior, and some of the galleries were yielding beneath the weight of the pigeons-dung deposited upon them. I picked up a handful of fragments of mosaic that had fallen from the ceiling. They are pieces of glass gilded or silvered on the face, and with a thin layer of glass over the leaf of gold or silver. The figures of some of the seraphims were distinguishable in spite of the whitewash, and are precisely in the style of the specimens of Byzantine art in the gallery of Florence, which are so obviously the sources of Cimabue's earliest inspirations.

them a Christian signification; and in like manner they adopted the architecture of pagan temples for their churches: first those of Greece and Rome, and afterwards, when modifications of these came to be associated with Christianity, they carried some of these elements to Scandinavia, and amidst the conquering Vikings who had settled on almost every coast of Europe. Then, by combining the Scandinavian ship-temple with the columns and arcades of the decaying Roman or Byzantine architecture, they produced the beginnings of what we call Gothic. Such, at least, appears to me the true theory of the origin of Gothic architecture; and this cathedral of Trondhjem is one of the most interesting illustrations of it.

The family pews are very curious; they are tiers of boxes made of deal wood, like rabbit hutches piled one above another. A colossal figure of Christ, after Thorwaldsen, is well placed in the choir, and is very impressive; the most effective and appropriate statue I have ever seen in any church. Standing alone, and visible from every part of the building as the dominant object, its presence and influence are felt to be diffused throughout, and are finely suggestive of the living influence that should be similarly felt; and really is in a Norwegian church, if anywhere.

I paid another visit to the cathedral in the afternoon, and in a kind of vault or cellar saw a large number of mummies, said to be the bodies of Norwegian kings; which I doubt, for kings can scarcely be so cheap.*

* Unless they are the Vikings, or Sea-kings.

They are in rough wooden boxes, or coffins, very rudely and disrespectfully heaped upon each other, warehouse fashion; most of the boxes are broken, and the bodies visible. They are in an excellent state of preservation, the features being distinct, and the hair remaining attached; the skin is hard and dry to the touch. They appear to have been simply frozen and desiccated, like the bodies in the Morgue at St. Bernard.

At eleven o'clock P.M., in the still lingering daylight, I went on board the *Constitutone* steam-packet, bound for Hammerfest. We started at midnight; and on rising next morning, I found that we were still in the Trondhjem fiord. The scenery of this portion of the fiord and the neighbouring coast is not very striking. In the Namsen fiord, which we reached late in the day, the scenery is much finer. Here the steamer winds about through narrow channels, some less than a quarter of a mile wide, and breaks into a succession of land-locked basins, forming beautiful lakes, with richly wooded banks, and hills, and islands. Several of these are very much like Loch Katrine, but that the water is visibly salt. The well-grown forests, the rich green fields, and substantial farms, all under a scorching sun, are totally at variance with one's preconceived notions of lat. 64½°—but two degrees from the arctic circle.

The sunset at night was most glorious. Nothing can exceed, and no description give any idea of, the protracted loveliness of these northern sunsets. The glowing beauty lingers for hours—all the evening, through midnight, and on to the next morning. The veteran tourist, and the officer with the Epsom

veil, were on board; these, together with the salmon-fisher, a thorough, true-hearted Englishman, and an Oxonian we met at the Belle Vue, made a jovial English party. There were many native passengers on board, especially on deck; for the steam-packet is a sort of water omnibus, picking up passengers continually at the different stations, where it stops about once every hour or two, night and day.

I was awakened at an early hour the next morning by the captain (who, as well as the lieutenant, spoke English fluently), to see the mountain of Torghatten, so named

TORGHATTEN.

J. Steeple Del.

M & N Hanhart Chromo Lith

THE SEVEN SISTERS.

Published by Smith Elder & Co 65 Cornhill London 1859

from its resemblance in shape to a "wide-awake" or "sou'-wester" hat. As we passed close to it, this peculiar shape was not very evident, though at a greater distance it is. It is an insular granite rock, rising to about 1,200 feet above the sea level.* At the upper part, some 600 or 700 feet above the sea, is a huge tunnel, which, from the position of the steamer, we had an excellent opportunity of seeing. The daylight was visible clear through the body of the mountain. It is difficult to form an accurate idea of the size of such an opening, but at a guess I should say about 70 or 80 feet high and about 40 broad. Pontopiddan states that it is 6,000 feet long and 300 feet high; but he was in the habit of measuring sea-serpents, and this is evidently sea-serpent measure. Sir Arthur Brooke, who inspected it, does not give its size, beyond stating that its height exceeds that of a lofty cathedral. The tunnel passes directly under the peak of the mountain. I am not aware of the existence of any other cavern of a similar kind to this, at such an elevation, and in a granitic rock. No approach to an explanation of its formation has yet been given.

Beyond this the scenery of the coast is magnificent; being composed of great chains of mountains with craggy peaks and snowy sides. The Seven Sisters is a short range of mountains rising directly out of the

* This is the height according to Professor Forbes' estimate as the mean of the very different statements that have been made concerning it. I had set it down in my note-book at about 1,000.

sea to a height of 3,000 or 4,000 feet, and forming an island. They make a glorious panorama as the steamer sweeps along their feet. Then the Hestmann, or horseman, rears his head from the sea, and marks the crossing of the Arctic circle.

This Hestmann is another mountain island, shaped like a horse with a mantled rider. The head and ears of the horse from one point are quite ludicrous in their resemblance.

THE HESTMANN.

When I stated that no explanation had been given of the origin of the Torghatten tunnel, I had not seen the Hestmann, nor heard his story as narrated by a sailor: now the whole matter becomes quite clear. The story is as follows:—

One of the younger brothers or cousins of the devil, a "Jutul," residing in this neighbourhood, went, as he was wont to go, on a visit to his Seven Sisters. There he met a female cousin, many degrees removed, who was likewise a visitor, her residence when at home being on an island some distance further south. As is usual on such occasions, the two young people fell desperately in love with each other; and, as is also usual, they vowed eternal fidelity. Business of importance called the giant home, and his fair cousin also had to return to attend on a sick brother; so, with tears, and vows, and protestations, they mutually tore themselves asunder, and the Seven Sisters found the Jutula swooning on the shore from which her lover had departed. She went home to her sick brother, put his feet in hot water, applied a mustard poultice to his chest, and by the aid of these and a little aperient medicine he soon recovered. During his illness his sister made him her confidant, and he agreed that she should marry the Jutul of her choice; but on his recovery his perverse nature returned, and he determined that his sister should wed a dissolute companion of his, whom she had always objected to on account of his smelling so strongly of tobacco-smoke.

Every Jutul family has some special power or malignant charm by which to battle with its enemies; the

specialty of this family was petrifaction. The cruel brother exercised that power on the messengers from his sister's lover, and turned them all into rocks. Now the lover was not aware of the brother's existence, for the fair giantess had very improperly concealed the fact, on account of his extravagant habits having imperilled her dowry. Believing thus that his plighted one was the last of her race, and who alone possessed the power of petrifaction, he of course concluded that she had put the stony insult on him; so mounting his steed, and shouldering his crossbow, he shot a heavy bolt at the dwelling of the Jutuless: his specialty being the power of unerring aim.

Her brother was bathing at the time, and it being a very wet morning he wore his sou'-wester. The bolt sped through seventy miles of air, passed through the hat of the treacherous Jutul, and carried away a portion of his skull; but then, impeded by this resistance, failed to make the *ricochet* the archer had relied upon, and simply skimmed the water and fell at the fair one's feet. She knew the bolt, and that none but he could have shot it. She saw her brother (who with all his faults she dearly loved) sinking beneath the wave never to rise again, and all that remained of him for her loving eyes to gaze upon was his perforated sou'-wester floating on the waters. She thought of the perfidy of the lover she had believed so true, and her heart was broken; but as she died she exercised her power of petrifaction; and herself, the floating perforated sou'-wester, her lover, and the horse he rode, were all converted to fast-rooted rocks.

The Seven Sisters who witnessed the consummation of this doleful tragedy were petrified with horror.

Those who doubt the authenticity of the foregoing narrative should go to the spot and examine the evidences for themselves. There is the mounted Hestmann with his martial cloak flung over his shoulders; there is the perforated sou'-wester, and beyond it the drooping fair one, all turned to stone; there are the messengers, a long procession of low rocky islands, reaching from the Hestmann to his love, and there are the Seven Sisters in stony stillness looking on.

We are told by many very eminent men that we are not to judge a narrative relating to times long past by what would be probable or improbable, possible or impossible, at the present day; but that if the narrative is minutely circumstantial, and the circumstances are self-consistent, they afford internal evidence of its truth; and if, in addition to this internal evidence, we have the external evidence of monuments and localities that perfectly correspond with the narrative, these together are sufficient, and the modern current notions of inherent probability or improbability, possibility or impossibility, are not to interfere with our belief. As all these conditions are fulfilled by the above legend and its monuments, we are, according to this theory, bound to believe in the sad story of the Hestmann and his love.

As we sail along the coast, fresh scenes of savage grandeur continually unfold themselves. The great inland chain of snowy mountains is well seen about Rodö, latitude 66½° to 70°. The valleys descending

from these are filled with magnificent glaciers, the great crevices of which and the blue ice being visible from the steamer with telescopes. These glaciers appear as extensive as the glaciers of the Alps: Von Buch states that some of them touch the sea; but he speaks from hearsay: there is no record of any traveller having visited and examined them. The whole region—the Fondalen—is uninhabited; a snowy waste, extending away to the Swedish frontier.

At about eight in the evening, as we approached the Satten fiord, lat. 67°, I observed a curiously-shaped ship, and tried to define it with the telescope. Presently it diminished to half its former size, then rose again, but was then seemingly undermined by a sort of notch, or open angle formed by one portion of it with the surface of the horizon. Further examination showed that it could not be a ship, and many opinions were expressed concerning it; but at last I discovered its real nature. It was the head of the veritable "Kraken," the great Scandinavian sea-serpent; the angle being the monster's mouth, his upper jaw only being above water. The folds of his enormously long body were seen stretching along the horizon, now rising, now sinking, all in continuous motion. At the most moderate calculation, its length must have been three or four miles, from the uplifted head to the last visible fold; and how far the point of its tail might be from that I will not venture to conjecture. It continued moving, and sometimes the greater part of it disappeared all at once: at one moment the head disappeared almost entirely, at another time only the

head and the extreme folds were visible, then more than half of the tail end had gone. Why, then, have neither geologists nor fishermen found any fossil or recent remains of this creature? Simply because they have not properly sought for them: the petrifactions exist abundantly. They may be found hereabouts—in the form of low rocky ridges, stretching in long lines, with spaces of sea between them, like the Hestmann's messengers. Some start abruptly out of the water, and rise to fifty, a hundred, or more feet in height; these are the heads, the low ridges are the coils of the body, of the Kraken.

Towards the end of a long, clear, glaring summer's day, after the sun's rays (which here are powerful to a degree incredible to those who have not felt them) have been for eighteen or twenty hours continually pouring upon these rocks, which from the nature of their surface are excellent absorbers of heat, they become considerably hotter than the surrounding sea, and are covered with a layer of rarefied air, continually ascending and waving about, and refracting the light very differently from the denser air over the intermediate sea. Now let us suppose a line of these low rocks just visible above the horizon, and between them and the spectator's eye a number of other low rocks, which he, raised on a ship's deck, looks over. It is evident that as he moves along he will see a particular point on the horizon sometimes over an unbroken line of sea, or sometimes over one or more of these low, warm rocks, with a rarefied atmosphere above them. Any one who is acquainted with the rudimentary principles of optics will perceive

that, under these circumstances, an apparent undulating motion would be given to objects on the horizon; they would appear to rise or fall, according as he viewed them through a denser or a rarer atmosphere; and thus the waving of the coils of the serpent's body is accounted for. This may be illustrated by holding a hot poker between the eye and a distant object which is seen just over the poker.

But how about the undermining of the head-rock forming the serpent's uplifted jaw? This is as easily accounted for, though the principles upon which it depends are not so popularly understood. One of the most beautiful illustrations of the mathematical consistency—so to speak—of Nature's laws, is a curious consequence of the law, that in a given body the sine of the angle of ordinary refraction bears a fixed ratio to that of the angle of incidence. I will not enter into the mathematics of this, but merely state the fact; which is, that light cannot pass at all from a dense into a rare medium at angles exceeding a certain degree of obliquity, as the law of refraction could not, under such circumstances, be fulfilled; thus all the light is turned back, for if it cannot go through in its own way it won't go through at all. Hence under certain circumstances the thinnest film of air is absolutely opaque: more opaque than a dense metal, for gold leaf allows some light to pass through it. Such a film of air admitting the passage of no light whatever, but reflecting all that falls upon it, shines like the brightest polished silver.

By taking advantage of the remarkable power which carbon in some of its forms possesses, of clinging tenaciously to a film of air, I have devised a simple experiment which illustrates this in a striking manner. Take a piece of sheet metal, as copper, brass, iron, or any other, and hold it over the flame of a candle or lamp until its surface is uniformly blackened; then let it cool, taking care not to touch the blackened surface with the fingers. Now plunge this in a tumbler, or other convenient vessel of water, and look at it obliquely through the water: the dull black carbon surface disappears, and a bright, glistening, silvery mirror takes its place. Then take the plate out of the water, and (if the experiment has been carefully conducted) the blackened surface will be quite dry: the water has not touched the carbon, for it carried down a thin adhering film of air; and it was that which shone like silver, and by its opacity concealed so completely the black surface beneath. It is because you looked through a dense medium, the water, very obliquely upon the surface of a rare one, the film of air, that this effect was produced. If you take a tumbler of water, and look up obliquely through the water to its surface, the surface appears mirror-like, and reflects objects that are in the water; but your finger, held just above the surface of the water, is invisible, on account of the perfect opacity of the air under these conditions. Many water-beetles and water-spiders have the power of carrying under water a film of air adhering to their bodies, which appears like a coat of polished mail. If the blackened plate be laid

horizontally at the bottom of a glass vessel—such as an aquarium tank—and viewed through the sides, an explanation of the *mirage* of the desert is at once exhibited: the black surface disappears, and a mirror takes its place; such a mirror as the thirsty traveller sees upon the distant sands, and mistakes for a sheet of water. The hot sand rarefies the film of air in contact with it; the spectator's head is immersed in a denser stratum of air, and looking from that, very obliquely to the rarer film upon the sand, he sees the mirror just as you may see it on the air-film of the blackened plate; but he sees it only afar off, near the horizon, and not at his feet: and as he advances, the bright illusion advances also; the reason of this being, that the difference is so small between the density of the film upon the sands and the stratum enveloping his head, that a very great obliquity is necessary for this total reflection to take place. Many other explanations of the mirage have been given, but this I believe to be the true one. The common explanation that it is reflection from vapour will not bear examination.

The reader, however, may still be at a loss to see how this bears upon our sea-serpent and his uplifted jaw. It is thus: let us suppose one of these island rocks to have a sloping shore, or that there is a reef of low rocks close to it; these, being heated, will be covered with a film of rarefied air clinging to them for a while before ascending. Such rocks, or sloping coast, when near the horizon, will be seen at an obliquity sufficient to

produce a mirage; this, the necessary obliquity, will be maintained up to a certain height of the slope, and, so far, the dark rock will be invisible, and its place occupied by a bright reflecting surface. The light, thus reflected, will be scarcely distinguishable from the transmitted light of the horizon, and hence it appears (unless carefully observed) that the bright part of the rock or shore is transparent, or that the rock is cut off from below: hence the gaping jaw.

This apparent uplifting of low islands and coasts, and more particularly of the long promontory slopes of islands or coasts, is a very common illusion, that may be witnessed without going to Norway. The Londoner may see it very strikingly displayed on any fine summer afternoon, from the deck of a steam-packet going to Margate, or the Nore, or Herne Bay, when the sun has been shining brightly all day, on the Essex coast at the mouth of the Thames. The Essex coast is very low, and there are trees upon it; under the conditions I have mentioned, the land becomes invisible, and the trees appear suspended in the air. Sometimes the lower half of the trees are also invisible, and only their tops are seen, cut off from the earth, and standing apparently unsupported considerably above the line of the horizon. Any one who will carefully observe these phenomena, on this or any similar coast, will, I think, be satisfied that my explanation is correct; for it only occurs under the conditions I have named, viz., when the land is warmer than the air over the sea: it only extends to those parts seen at a great obliquity,

and by attentively comparing the horizon over the invisible land with that over the sea, it will be seen to be much more luminous, and to resemble the film of air upon the blackened plate.

I have seen it most strikingly in the Greek Archipelago, and along the Mediterranean coast of Africa. The Greek islands were fantastically distorted; and at Algiers the effect was very curious; the palm-trees upon the coast seemed like balloons or parachutes flying over the sea. But, as I have said before, it may be seen on almost every coast on any afternoon of a hot summer's day; and I have been surprised to find how many people—even sailors—have seen it for the first time only when I have pointed it out to them.

The moving rocks and islands above described, were seen at about 8 P.M., near the Satten Fiord, lat. 67°, and I have a very strong suspicion, almost amounting to a conviction, that this optical illusion has given rise to the marvellous stories of the Kraken, or great sea-serpent, which the Norsk mariners so often see, and Pontoppidan describes. The following extracts afford strong confirmation of this opinion. Pontoppidan tells us that "the Kraken is the largest creature in the world; its back, or upper part, which seems to be in appearance about an English mile and a half in circumference (some say more, but I choose the least for the greater certainty), looks at first *like a number of small islands surrounded with something that floats and fluctuates like sea-weeds.* It is said that if the creature's arms (tentacula) were to lay hold of the largest man-

of-war, they would pull it down to the bottom," &c. He then proceeds to say, "If I were an admirer of uncertain reports and fabulous stories, I might add much more concerning this and other Norwegian sea-monsters, whose existence I will not take upon me to deny; but I do not choose by a mixture of uncertain relations to make such accounts appear doubtful as I myself believe to be true and well attested."*

Mr. Milford gives the following extract from the letter of "an intelligent friend at Bergen," who had made some inquiries on the subject:—

"I have consulted a gentleman of much learning, and intimate knowledge of everything belonging to Norway, Stiftamund Christie, whose name is so much connected with the political institutions of Norway from the year 1814. I especially asked his opinion about the sea-serpent, and he assured me that not only do the peasants feel convinced of its existence, but that he himself believes that it exists; that the Bishop of Bergen, a few years ago, published an article in an antiquarian paper, which comes out occasionally, by the directors of the Bergen Museum, containing information in corroboration of this belief; that the inhabitants of the island Herroe at Sondmör *see the serpent every year for a couple of months, in summer, whenever the weather is fine and the sea calm*," &c.†

I might add many other extracts of a similar kind. All agree in describing the undulating motion of the

* Pontoppidan, "Natural History of Norway," 1751.

† Milford's "Norway, and her Laplanders in 1841," p. 197.

monster and the "fluctuating" appearance about him. Such undulation and fluctuation are the invariable concomitants of the illusion described, and are produced by the rising of the heated air. The experiment of holding a red-hot poker before a printed paper will illustrate this.

The time of year, the state of the weather, and the locality of the monster's appearance are similarly confirmatory. He is usually seen in these low, rocky, island-spotted coasts. I allude to the real kraken with his "mile and a half" of circumference and some miles of length, not the puny sea-serpents of a few hundred yards' length. The only part of these accounts that I find difficult to reconcile with my explanation are those describing how boats have been chased by the monster; but it is rather curious that such an immense beast should never have succeeded in catching these boats: if the rapidity of its movements bore any proportion to its magnitude, a rower should stand but a poor chance. I suspect the truth is that the fear of the kraken has been sufficient to convince the boatmen that the monster was after him, but not strong enough to swamp the boat or kill the rower in calm weather and in presence of spectators on shore.

We were now fairly in the region of the midnight sun, and according to our calculations, taking the declination and refraction into account, the sun should just touch the horizon or dip a little below it. We watched it anxiously till about half-past eleven o'clock, when its lower limit is still considerably above, but we lost it

behind the mountains which the progress of the steamer placed to the northward. The daylight, warmed with the beautiful sunset glow, continued all night, lighting up with indescribable beauty the rugged summits and snow hollows of the wild mountains that start up from all points of this majestic coast.

CHAPTER VI.

The Loffoden Islands—The fish harvest—Cod-liver oil—Continuous and growing grandeur of the coast scenery—The Maelstrom a myth—Cowardice of the Ancient Greeks and Romans—The arctic summer—Rapidity of vegetation—Tromsö—Her Majesty's representative—An encampment of Laplanders—Excessive heat—Physiognomy and general appearance of the Lapps—Construction and interior economy of a Lapp hut—Love of home and domestic snugness—The midnight sun—Lapps in their Sunday clothes—Moral and religious character of the Lapps—Drunkenness no longer prevalent—A Lapp aristocrat—Adaptation of the eye to cold climates.

LEAVING the mainland and its fiords the next day, we crossed over to the Loffoden Islands. These are, if possible, still wilder and grander than the mainland: sharp granite pyramids springing from the sea to a height of 3,000 or 4,000 feet, and breaking at their summits into a countless multitude of jagged points, thoroughly justifying Mr. Everest's comparison with a shark's jaw. The snow lies thickly in the hollows of these teeth and spines, but there are rich green pasture patches even here, and sheep, cattle, and goats are to be seen occasionally; but the chief harvest of this region is a sort of codfish,* and this harvest was now in course of reaping. We could smell the land as we approached it, where acres and acres of rock were covered with the split fish lying

* Called Haik, or coal-fish, by our fishermen.

out to dry in the sun. Like the bodies in the vaults at Trondhjem Cathedral, the mummification of the fish is effected by simple drying, and "stock fish" so much demanded for fast days in inland Catholic countries is the result. When the drying is complete, they are stacked into heaps, which may easily be mistaken at a distance for hayricks. Near to these stacks and drying acres—generally close upon the shore—are huge boilers, where the cod-livers were stewing most odoriferously. We stopped at many of these reeking stations, and steamed between wild granite mountains starting so abruptly from the sea that in some parts we passed through walled-up channels not wider than the windings of the Thames about Richmond, and winding as much or more than that river winds, but with sharp angular bends. On approaching these the vessel appears to be running hopelessly aground, and not until the bowsprit seems almost crashing upon tall rocks ahead, does the helmsman pull furiously at the wheel; when the ship swings round into the suddenly discovered opening.

It must be remembered that during this journey we were not always progressing to the northward, but sometimes sailing westward, eastward, or even due southward; through channels, up and down fiords and branches of fiords; stopping at coast and island stations to pick up and set down passengers and goods; and landlocked apparently at every turn by fresh islands and promontories and shores of fiords; so that the whole journey is like sailing through a tortuous chain of ten thousand glorious lakes.

These lakes of the Loffodens resemble the Lake of Lucerne in its wildest parts, but they are still grander; for though the mountains are not so high, they are much more rugged, harsh, and savage, and the great snow patches filling the hollows at the foot of each of the spiky pyramids, add vastly to their sublimity. The wailing and screaming of the sea-fowl among the bare granite crags and right overhead, as they were startled by the steamer rounding the abrupt bends and breaking suddenly upon their solitudes, was in fine harmony with the wild desolation of the whole scene, and heightened its effect prodigiously.

Towards midnight a mist came gradually down, first hiding the peaks and magnifying the visible sides of the hills, then hanging about the masthead, and finally for a short time enveloping us altogether. It broke as we approached a station; or it may be that we sailed through it. The effect was glorious. Out of the misty chaos there suddenly started one of the grandest clusters of these rugged granite peaks. The vessel was near to the shore when the cloudy curtain rose, and the mountains sprang upon us instantaneously like a range of phantoms, and by the suddenness of their apparition seemed quite close overhead and almost falling on us. The hemisphere of gray mist that for a while had bounded our vision, reddened as we reached its boundaries, and all the panorama which its opening disclosed was glowing in the ruddy glories of these incomparable midnights of the north. I had sat up on deck all the night before, and only went to bed

in the morning during our stay at Bodö and part of the crossing of the channel; yet here I was again on this bright sunny night, drowsy and giddy with perpetual staring and excitement, and yet incapable of sleep. I have seen many a grand sea-coast, all the best that the Mediterranean can show, but nothing to equal this. My fellow passenger, the veteran tourist, who had sailed all the world over, can remember no rival, unless it be the Straits of Magellan. From the Seven Sisters to this, the north extremity of the Loffodens, the panorama maintained this unrivalled magnificence.

In the early part of the day we passed close to the channel against which the terrible word Maelström is marked on most of our English maps. Ever since my first school lessons in geography, I have pictured this place to my mind as a great, whirling, conical hollow in the waters, like the den of the ant-lion, near to which no ship dare approach, not even within many miles. I looked for it on my Norwegian map, but it is not marked there; the rest of the English passengers were equally diligent, but with no better success, though there were three different maps among us, and all on a large scale, giving minute details. We peeped at the ship's charts, and could not find it there in the portions that we examined. We then inquired of the captain, a man of much experience in these seas, who told us that all he knew about the Maelström had been communicated to him by his English passengers. He was very satirical, and cruelly hard upon us: he told us that the English had imported a great deal of useful knowledge

into Norway, amongst which was this information concerning the Maelström; also, that the English patronized the Norwegians very kindly, and showed them how to improve their political institutions, their agricultural operations, and the build of their ships and boats: and among these practical hints and suggestions he classed the sailing directions for avoiding the Maelström, which had been drawn up by English hydrographers for the benefit of Scandinavian mariners. We had much difficulty in getting at him at all on the matter, he was so impermeably ironical; but the lieutenant was more communicative.

It appears that the Maelström, which we read about, is an unmitigated myth. There are many *mael ströms*, or *bad currents*, hereabouts. Several of the channels between the islands are, in certain concurrent states of the wind and tide, rather dangerous for small craft; and even larger vessels, if not skilfully handled, may be drifted against the rocks. The channel where we mark the Maelström is one of these, but by no means the worst of them; in ordinary states of wind and tide, it may be navigated safely in a cock-boat. There is no huge gulfing eddy anywhere hereabouts, and I believe not in any other part of the world. The ancient Greeks and Romans talk of Scylla and Charybdis, but they were a set of lubberly mariners, as the narrative of the voyages of Æneas and others sufficiently show. No true sailors could have invented such a catalogue of mythical terrors as those feeble old coast crawlers believed in. They made more fuss about the small bit

of their petty Mediterranean lake which they attempted to navigate, than did the Phœnicians and old Scandinavians about the whole Atlantic. The passage between Scylla and Charybdis is not more perilous than going through the middle arch of Putney Bridge against tide: it is just possible to get upset at Putney; but the other channel is so wide and currentless, that the idea of any danger is simply absurd. I have bathed there several times, and, though I swam about in every direction, never found an eddy that could whirl me round. Of course the travels of Æneas, &c., are only the dreams of the poet; but they describe the traditions and terrors of the mariners of the time: otherwise they would have been laughed at when written.

On returning to the mainland next day, we seemed to come upon a southern climate, though still proceeding farther north. Here we saw rich verdure, well-cultivated, comfortable-looking farms, and bright, smiling, sunny landscapes, backed with luxuriant woods and frowning crags. The channel from Havnvyk to Dypö, and onward for several miles, presents as fine a combination of luxuriance and grandeur as any of the lakes of Switzerland. This, and the oppressive heat, are quite subversive of one's ordinary notions of the arctic regions: for we were now above two degrees north of the Arctic Circle. We passed several waterfalls, coming from the snow-fields down to the sea: some of them having evidently only a few weeks' existence during the hot summer, which lasts about a month.

The rapidity of arctic vegetation is here exhibited

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most wonderfully. The captain and lieutenant assured us that all this luxuriance had come into existence during the last fortnight: that the birch-trees now in full leaf were quite bare only two weeks ago, when they made their last voyage. In a few weeks hence their boughs will be bending under a burthen of new-fallen snow. There is no closing of the blossoms at nightfall here—no vegetable repose—no halting of the upward movement of the sap—but one unceasing development, stimulated throughout by the continuous sunbeams; and then comes the long, long winter's sleep and darkness, when all the vegetable world lies torpid beneath its coverlid of snow, until the next short one-day summer awakens it again to a wild revelry of life and growth.

We passed several fine glaciers to-day, especially in the neighbourhood of Kastnehaven. The summer was late this year, and the quantity of snow greater than usual at this date; but the weather had been very fine ever since I arrived at Christiania: two or three showers, and one wet night, were all I had seen of bad weather in Norway.

We were disappointed of the midnight sun again to-night: there are high mountains to the northward; but the midnight glow was beautiful as ever.

We reached Tromsö, and went ashore. It is a little trading-town on an island: "ö" is the Norsk for island, and all places with that termination to their names are islands. It is only by this, or reference to the map, that one can distinguish, when on the spot, the islands

from the mainland; all being so cut up with fiords and channels. There is an English consul here; and it is a matter of etiquette to call upon the consul at such places. This custom, as tourists become more numerous, the consuls will doubtless regard as "more honoured in the breach than in the observance:" it must be already somewhat of a bore; though Mr. Holst was as polite and cordial as though we were the only Englishmen of the season.

Some of my readers may possibly imagine that her Majesty's representative at Tromsö is a stately idler, lounging in a magnificent mahogany office, duly enveloped in brass rails and red tape, and perpetually reading a very large newspaper. Not so, by any means; the Norwegians are no such fools; nor are the Englishmen who settle among them. Dignity and usefulness go together here, as they should all the world through. The royal standard of Great Britain waves over the door of a homely wooden shop in the general line, where the inhabitants buy halfpenny candles and nips of brandy, and where you may be suited with a pair of shoes, a Dutch cheese, or a pocket-knife, and you may buy a horse, a bottle of claret, a bearskin, or anything in reason, from a full-rigged ship down to a box of matches. The representative of Great Britain represents the greatness of Great Britain fairly and truthfully, by driving a flourishing trade, and thereby benefiting himself and his fellow-creatures around him.

Tromsö consists partly of the Noah's-arks I spoke of

at Trondhjem, and partly of some streets of well-separated log houses. These Noah's-arks, common at all the coast and island stations in the north, are fish warehouses—not for fishmonger's fish, but dry-fish; they are barns, where the harvest of stock-fish is stored ready for exportation. Tromsö, I believe, does a considerable trade with Russia. We—that is, the English passengers—crossed the water, and walked up a valley opposite the town to a Lapp encampment, distant about four miles. I have scarcely ever felt the heat more oppressive than during this short walk. The musquitoes were very troublesome: I say musquitoes, because it is the fashion to give that name to every kind of troublesome gnat one encounters out of England, and to no kind of gnat at home. They are very abundant here, but I do not think they are the same species as are common in southern countries.

We finally reached the Lapp camp, which consisted of two huts, one containing some goats, the other being occupied by families of the human species. Besides these huts, or wigwams, there were some skeleton huts made of sticks, from the ribs of which various unintelligible articles were suspended. One was a baby's cradle, or shell, a kind of elongated egg, with a hole near one end; inside of this egg the infant is deposited and closely packed with moss. There were skin packets, containing snow skates, and some *pulks*, or reindeer sledges, and other winter utilities, now packed up and out of use.

As we approached the huts, a small man, with a

large supply of ragged red hair, stepped forward a few yards, and then stood still in the sun and perspired. His complexion was of a yellow-ochre tint, and his features exhibited very decidedly the leading characteristics of the Mongolian type.

In the hut was another man with dark eyes and hair, and features less decidedly Mongolian. There were also some women and children, all sitting down on the ground and perspiring. It was evident, at a first glance, that hot weather does not suit these people. They are small-boned, with little muscle, and much fat equally distributed over the body like the blubber of the cetacea. It doubtlessly serves the same purpose, that of protection against the cold, and a reserve of respiratory food; but in this hot weather it is a greasy burthen, in a perpetual state of oily fusion, visible to the eye and sensible to the nose. My first impressions of these Laplanders were very disagreeable, and I confess that my courage almost failed in the matter of entering the hut: the odour of greasy perspiration, the gloom and squalor of the place, and the certainty of many fleas about the floor, made me hesitate upon the threshold, and rather peep through the low door than boldly walk in.

The inmates had no notion of bidding us welcome, and seemed equally free from any sense of intrusion, nor did their faces express any kind of activity beyond that of perspiring; and yet I never felt so strongly impressed with the idea of being impertinently intrusive in thus peeping in and trying to venture upon entering. Perhaps the smallness of the place produced that

feeling, for I always feel more diffidence about walking unbidden into a little cottage than into a grand hall or palace: the latter seem, like taverns, too big for any one family to be able or entitled to occupy exclusively. Some of us did finally venture in, and myself among them.

A LAPP HUT.

The hut, which at a distance looks like a stack or mound of peat, is circular, supported by a framework of wooden ribs, all bearing towards each other in the centre, and leaving an open space at the top for the smoke to issue. A rude door closes it; which is so low

that one has to bend considerably to enter. The height at the centre is about eight feet, and the diameter of the whole edifice about fifteen feet. The floor is made of twigs of fir and juniper. The fire is on the ground in the centre of the hut, and some arrangements for hanging a pot over it were visible.

The women had their hair parted in the middle, and tied in a knot behind as is common in England. Some wore skin dresses with the fur inside, others a thick woollen material, with red and yellow stripes about it. Men and women both seemed to have but a single garment on their bodies, without any under-clothing; and it has somewhat the shape of our overcoats. The legs are protected with a kind of gaiter, and the shoe, or "comargo," is a large and rather a handsome affair made of the reindeer skin.

After a while, on becoming familiar with their faces, they appeared less repulsive, and when they awakened into a little animation there was something pleasing in the innocent simplicity of their manner. One woman was almost pretty, and might have been quite so, had she been clean, or at all nearly so; she had fine black eyes and hair, and when she laughed looked somewhat like an Irish peasant girl.

After being a short time in the hut, and accustomed to its gloom and odour, I could easily understand how, amid the snows of an arctic winter, such a hovel might be an object of strong home affections to its inhabitants; how a sense of warm, dirty, loving snugness might exist among a heap of these little people, when all are huddled

together on the floor round the centre fire during the long darkness of their bitter winter-time; and how the Lapp girl, who was married to a Frenchman and lived for many years among the gaieties of Paris, returned to the snows of the fjeld again when her husband died and left her alone in the dreary solitude of a crowded city.

It reminded me of a story I heard some time since from a celebrated Edinburgh publisher, who had purchased a large estate, and was much shocked at the manner in which some of the people upon it were living. He found the family of a very intelligent working man all living, sleeping, and feeding together in one apartment, without regard to age or sex; he remonstrated, and did more: he built an extra room to their cottage, and furnished it comfortably as a sleeping apartment. Three months afterwards he paid them another visit, and was surprised to find that the new room had not been occupied, and on asking why, was answered that it was "mair cheery-like to be a'thegither."

If a philanthropist were to erect improved dwellings for the Laplanders, with more spacious apartments, separated for the sexes, with ventilating shafts, and mahogany chairs and tables, the little people would doubtless desert the commodious, well-ventilated, mahogany-furnished dwelling, and erect one of their accustomed hovels, where they would find it "mair cheery-like" to pig together on the floor in their accustomed huddle of warm domestic dirtiness.

There were several children about, who were much better-looking than their parents; they appeared more

active and intelligent. There were no reindeer visible; they were on the hills among the snows, where they remain during the hot weather to escape the gnats that infest the valley. I saw no food of any kind in the huts. This colony is evidently accustomed to receive visitors, for they brought out for sale spoons made of the reindeer horn; they asked half a dollar or three marks each for them, and sold some at one mark each. Their bargaining, and all their proceedings, are singularly apathetic: they seem to have neither cupidity, curiosity, civility, nor incivility, nor any kind of activity whatever, and they are the most expressionless people I have ever seen.

We left Tromsö at six in the evening. The scenery of the coast is still very grand; and many glaciers are visible. At last we had open sea to the north, intercepted only by the picturesque island of Fuglö, or "Fowl Island," and we saw the midnight sun. It was higher than I expected, about four times its apparent diameter above the horizon. At twelve o'clock it stood over the island, which is about 2,500 feet high: it is excessively difficult to believe that it is midnight. The heat of the sun's rays is very much diminished: we tried to light cigars and paper with a lens, but failed, though a few hours previously the experiment was successful with the same lens. The band of golden glitter upon the sea, stretching from the eye to the horizon beneath the sun, is very beautiful; but the general effect of the warm subdued light upon the scenery is not so fine as when the sun itself is behind a range of hills.

At the Oxfiord station is a capital example of a terminal glacier moraine. It appears like an artificial pile of stones set up to bear the flag-staff which is mounted on its summit. Several Lapps, much better dressed than those we saw at the encampment, were sitting upon the moraine, awaiting the steam-packet, and two of them came on board. During the day (Sunday) several other Lapps came on board; they all seemed to be dressed in Sunday clothes made of coarse woollen material, gaily trimmed with red and bright yellow: they wore overcoats and leggings of the same shape as those at the camp. These Lapps were lionized considerably, not only by the English passengers, but also by several of the Norwegian passengers who came from the south. They showed some signs of bashfulness at being thus observed, and were even blushing with confusion when their clothes were examined; this was probably caused in a great measure by the fact that they wore their very best clothes. The first timidity overcome, they became more communicative, and showed us their knives in wooden sheaths, which all of them wore attached by a thong of reindeer skin round the waist. They even submitted to be measured, blushing a good deal, and laughing somewhat among themselves. The sailors treated them with patronizing gentleness, patting them on the cheeks and shoulders, and lifting them about like dolls; at which they smiled good-humouredly, and blushed a little. They appear to be the gentlest of human beings, child-like in mind as well as in stature. The height of the man we selected as a specimen was

four feet six and a-half inches Danish measure, which is equal to about four feet eight inches English. Most of them were making short journeys; some on their way to church. They are a strictly religious people; not merely a church-going people, but also highly moral and well-conducted. We were told by the Norwegians on board, who know them well, that the drunkenness which was once common among them has now almost totally disappeared. Most of them can read and write.

There was one who spoke a little English, and seemed to be a man of station among his people. He was five feet high, and rather proud, objecting decidedly to being made an object of popular curiosity. He came on board at Kaafiord, on his way to Bosekop, and was the best dressed of them all, and his wife and daughter were almost handsomely dressed: their caps, or bonnets, were quite elegant artistic affairs, fitting close on the top and sides of the head, and rising at the back to a point which bends forward with a graceful curve; this was gaily and tastefully embroidered in many colours. The women's dress is a kind of tunic tied loosely at the waist, and reaching a little below the knees, edged round with a bright yellow or red band, or with a double band of both colours. The trowsers, of the same drab or buff colour as the tunic, are tied rudely about the ankle with reindeer thongs; the same thongs tie the "comargo," or shoe, which is as picturesque as the headdress. These shoes, or boots, are made of reindeer skin, with the fur outside, very loose, reaching to the ankles, where, being thus tied up with

the trowsers, they must effectually keep out the snow. The toes are turned up like Turkish slippers, but in a greater degree; and they are ornamented with red and yellow bindings.

A Quain also came on board. He was about five feet two inches in height, and had a much larger head than the Lapps; he had a thick-set figure, with much bone and muscle, a sturdy sailor-like bearing, and was evidently a more energetic but less amiable man than the Lapps. His complexion had somewhat of an olive tint, and his features were quite Tartar-like. He sturdily avoided us, and compelled us to feel conscious of our impertinence.

The peculiar obliquity of the eye—or rather of the lower outline of the upper eyelid, which slopes downward to the nose and forms the strongest typical characteristic of the Mongolian race or variety—was more decided in the Quain than in the Lapps. This peculiarity results from the adaptation of the eyelid to the requirements of an intensely cold climate. The gland, or "tear-pit," in the inner corner of the eye is completely overlapped by the eyelid in the Esquimaux and others of the Mongolian variety of mankind. This arrangement for the protection of the gland is found in many of the ruminant animals that inhabit high latitudes.

Among the infinity of illustrations of beneficent design which the structure of animals presents, there is one which has always struck me as the most remarkable of any, though it seems to have escaped the

notice of writers on this subject: it is the peculiar sensibility of the eye as contrasted with that of the teeth. The eye being necessarily, from its function, one of the most exposed, and from its structure one of the most delicate, organs of the animal frame, requires most vigilant guardianship. It cannot be cased all round in close-fitting bone as the brain is, for that would shut it from its object—the radiant light. That portion, however, which may be thus protected is so, by the bony orbit; but the front, which must be exposed, has for a substitute the hard transparent cornea; and as this alone is not sufficient, it is covered with a thin membrane of excessive sensibility, so sensitive that it calls to instant service not only the wondrously smooth-lined eyelid, but every muscle, and all the energies of the body; as shown in the sudden start and upraised hands that immediately follow the slightest threatening of injury to the eye. This guardian sensibility is only on the surface of the eye, where alone it is required; the interior of the eye is quite insensible. The beneficent end of the institution of pain is served, when it has done its utmost to protect from external injury; if once the mischief is done, and the eye is pierced, it would be but useless torture for the pain to extend within. Thus, when the operation of couching is performed, the patient only suffers the pain of the perforation; the stirring about of the needle within, to break up the opaque lens, is unaccompanied with further pain.

The teeth, on the contrary, with their almost mineral structure, need no such protection from mechanical

injury, and are therefore almost insensible to all but the most violent mechanical attacks.

If we compare the eyes and the teeth, in their relations to heat and cold, we shall find that the conditions are reversed. The eye is the most hardy, while the teeth are the most delicately sensitive organs of the body. For what end is this ordained? The teeth are bad conductors of heat, and are coated with a glossy enamel; therefore, if they are suddenly heated or cooled, the surface will expand or contract before the heat is communicated throughout the substance of the tooth; and thus the enamel will be cracked, just as thick glass will crack, or as the enamel of thick porcelain will crack, if similarly treated: we have all seen old mugs, and thick cups and saucers, with a network of fine cracks upon the enamel. Many of us persist in drinking scalding tea and coffee out of such cups, in spite of the double warning of the cracked enamel and aching teeth; and by constant repetition of this folly the sensibility of the teeth becomes destroyed, and their substance soon follows their sensibility.

Now let us examine the eye in its relation to heat and cold. When, in spite of wrappers and overcoats, we are chilled to the skin—when the fingers and toes are numbed, and the nose with all the warm breath that passes through it, is threatening most painfully to freeze and mortify—the wet, uncovered eyes remain almost insensible to the freezing air: the cold can do them no injury, and therefore exposure to it inflicts no pain. The advantages of this are obvious. We may

cover up our bodies, our hands, our feet, and even our noses, with furs and wool; but the eyes must be exposed, or their necessary work cannot be done. They are the only organs that must not be covered, and they alone may bear with impunity continuous exposure to the most intense cold to which our earth is subject. I said *may* bear with impunity such exposure, but it is not all eyes that can. There is one part that is somewhat sensitive to cold: the little red prominence in the inner corner. The natives of the icy regions of the globe have this small corner covered by a special growth of the eyelid, and thus the adaptation is complete.

Suppose the case reversed—the teeth to be covered with a membrane perfectly sensitive to the slightest mechanical violence, and the eyes to be of all parts of the body the most sensitive to variations of heat and cold; the sense of pain would then be a malignant infliction: but as it is, we see in it a beneficent ordinance, an ever-watchful guardian warning us to protect and to abstain from injuring that exquisite mechanism, that life-evolving laboratory entrusted to our charge, but which in our ignorance, wilfulness, and sensuality we abuse so frequently, and therefore pay the penalty.

The Quains are natives of Finland; although many of them have settled in Norway, especially in the vicinity of the Kaafiord and the Alten valley. Both Quains and Laplanders are called Finns by the Norwegians: they are sometimes distinguished as Lapp-Finns and Quain-Finns. These Quains, or Esthonians, are usually

described as having less of the Tartar countenance than the Lapps; but this was not the case with the one on board, whose physiognomy was more decidedly Tartaric than any Lapp I have seen while in Norway. The Quains are usually taller and more energetic and athletic than the Lapps. Though their dress is similar, their habits are very different; the Quain being an agriculturist, and having a fixed habitation.

CHAPTER VII.

Anomaly of climate—Alten—Fashion and gaiety in the arctic regions—Hammerfest—A hint for railway directors—Floating colony of Fisher Lapps—Open-air bedrooms—Live dolls—Capital of the Fjeld Lapp—The Thief Mountain—Wine in the far north—The great meridian line from the Danube to the Arctic Ocean—A cruel defeat and humiliation—Improvement in travelling Englishmen—Folly of ostentatious lavishness—The return journey—Glaciers of the Nus Fiord—A public breakfast at Tromsö.

The scenery of the banks of the Alten Fiord is curiously summer-like, and verdant in many parts; especially upon the Kaafiord, which is the inmost portion of the Alten Fiord. This, combined with a bright sky, a scorching sun, and an atmosphere of a softness suitable for a consumptive patient, renders it difficult to believe oneself in latitude 70°, and nearly 400 miles due north of Tornea. The journey from Alten to Tornea (430 miles by the track), during the whole of which the traveller is proceeding nearly due south, presents the remarkable anomaly of a climate of continually increasing severity as he proceeds southwards. In the winter he travels from the open sea of the Norwegian coast to the head of the frozen Gulf of Bothnia. In the summer the thermometer sometimes rises to 87° in the shade, and in the winter it rarely, if ever, falls below zero; when, in other parts of the globe with the same latitude, mercury freezes. This village of Alten,

with its rich pasturages, its high civilization, where young ladies play the airs of Verdi's last opera, and expand their skirts to Parisian dimensions, is in about the same latitude as that in which Franklin and his comrades are probably frozen.

Alten has been specially gay of late. Mr. Thomas, an Englishman connected with the Alten copper-mines, has been recently elected a member of the *Storthing*, or Parliament. We are told that he is the first Englishman who has been made a member of the Storthing, and that the event was celebrated with much festivity, and great consumption of champagne.

We saw the midnight sun again, and an hour after arrived at Hammerfest, the northernmost town in the world. After leaving the Kaafiord the grandeur of the scenery begins to decline; about Hammerfest it is comparatively monotonous and uninteresting.

In order to afford the reader full information of the cost of everything, I append a copy of the steward's account against me for provisions consumed on the way:—

"*Han med yardl bortes.*"

	D.	M.	S.
1 frokost	0	1	8
1 the	0	0	8
1 caffee	0	0	12
1 middag	0	2	12
1 kal fik. vin	0	1	12
1 aften	0	1	6
2 the	0	0	16
1 middag	0	2	12
1 fl. vin	0	3	0
1 aften	0	1	6
2 the	0	0	16
1 frokost	0	1	8
2 the	0	0	16
1 middag	0	2	12
1 aften	0	1	6
2 the	0	0	16
1 frokost	0	1	8
2 caffee	0	0	20
1 middag	0	2	12
1 aften	0	1	6
2 the	0	0	16
1 fl. öl	0	0	10
1 frokost	0	1	8
2 the	0	0	16
1 middag	0	2	12
1 aften	0	1	6
2 the	0	0	16
1 middag	0	2	12
½ fl. vin	0	1	12
	7	4	8

The following is a literal translation of the above, in English words and English money :—

"*He with the large beard.*"

	£	s.	d.
1 breakfast	0	1	2
1 tea	0	0	3½
1 coffee	0	0	5
1 dinner	0	2	3
½ bottle wine	0	1	4
1 supper	0	1	1
2 teas	0	0	7
1 dinner	0	2	3
1 bottle wine	0	2	8
1 supper	0	1	1
2 teas	0	0	7
1 breakfast	0	1	2
2 teas	0	0	7
1 dinner	0	2	3
1 supper	0	1	1
Carried forward	0	18	9½

	£	s.	d.
Brought forward	0	18	9½
2 teas	0	0	7
1 breakfast	0	1	2
2 coffees	0	0	9½
1 dinner	0	2	3
1 supper	0	1	1
2 teas	0	0	7
1 bottle of ale	0	0	5
1 breakfast	0	1	2
2 teas	0	0	7
1 dinner	0	2	3
1 supper	0	1	1
2 teas	0	0	7
1 dinner	0	2	3
½ bottle wine	0	1	4
	£1	14	11

This account requires some explanation. First, as to the title of the debtor, "He with the large beard." The steward, not knowing our names, gave us descriptive designations in his ledger. There were five Englishmen on board who were thus described: "He with the red beard," "He with the white beard," "He with the large beard," "He without a beard," and "He with a veil." The two teas which occur so frequently must not be understood as two meals, but as two cups of tea, or of "the vand," tea-water, as the Norwegians call it. We considered ourselves as "done," or thereabouts, in this matter; for all the charges were made in accordance with a printed "tariff" suspended on the cabin wall. This tariff stated that the charge for breakfast was 1 mark 8 skillings; and tea and coffee being offered as part of the breakfast, we supposed that it was included in that

charge, but we found on paying our account that an extra charge was made for each cup of tea or coffee; —thus a breakfast, with two cups of coffee, cost 2*s.* English: an exorbitant charge for Norway, especially as the tea and coffee were mere slops compared with what I got at the poorest station on the road. But the reader must not judge all the Norwegian packets on this service by the *Constitutione,* which I am informed is in every respect the worst. It is the oldest steam-packet in Norway, and is said to be condemned and now making its last voyage, having nearly foundered on the previous one.

The fare from Trondhjem to Hammerfest, by best cabin, was 15 specie-dollars 32 skillings, about 3*l.* 8*s.* 2*d.* English. The passage occupied exactly six days, including stoppages. The fare for the return journey by the same boat was 15 specie-dollars 27 sk., or 5 sk. less. This difference is for the ticket or booking of the passenger. The charge for any journey is made according to the mileage, with an additional charge for the ticket. This is an equitable arrangement, that our railway companies might imitate; supposing that they should ever regulate their charges according to the amount of accommodation afforded. At present, if I ride from London to Birmingham by second-class, I am charged 15*s.*—from London to Boxmoor, 3*s.*, and from Boxmoor to Birmingham, 11*s.* 6*d.*; thus, if I have to travel from London to Birmingham I save 6*d.* by taking, first, a ticket to Boxmoor, and then another ticket on to Birmingham,—on the principle that the more trouble I give the company, and the more tickets I use, the less

I pay. Of course I always do save the 6*d.* and trouble the company, and advise everybody else to do the same, as the best means of putting an end to such absurd anomalies. It is a common practice to charge more for what is called a "through journey" than for the same journey broken into several stages: thus a passenger who makes a given distance in a dozen stages, thereby employing a dozen porters for his luggage, a dozen ticket clerks and collectors, and using a dozen tickets, pays no more—sometimes less—than he who makes the same journey in one stage, and employs only one porter, one clerk, one collector, and uses only one ticket: and this by a mode of travelling where the mere conveyance or traction cost is ridiculously small; for when a passenger is once in a train, and the train started, the difference of cost for carrying him ten miles or a hundred miles scarcely exceeds one penny. The present system of railway charges has all the anomalies, exorbitance, and absurdities of the old postage system, and of course both the public and the shareholders suffer. If a much lower charge were made for mileage, and a charge on each ticket for station expenses, there would be some relation between the amount of work done and the charge made for it.

Hammerfest, situated in lat. 70° 49′, is a small town of one street, composed of the usual straggling wooden houses, some of them, however, of considerable size. There appear to be about as many Lapp inhabitants as Norwegians; or, at any rate, quite as many out of doors.

There are two classes of Lapps—the Fjeld Lapp, and the Fisher Lapp; the former I have spoken of at Tromsö. The Lapps at Hammerfest are all fishers. Their boats are not larger than the smallest rowing-boats we have on our coast, and far less strongly built. These are not only their fishing-smacks, but also their family residences; serving them "for kitchen and parlour and all." They live for the most part afloat, the boats moored to the rude quay; and it is an odd sight to see a row of these floating families going to bed publicly, in the open air, on a fine sunny midnight. After a supper of dried fish, which they pull to threads with their fingers, they say their prayers, and then the husband and wife tuck themselves up together under a reindeer skin at one end of the boat; the baby, in its "egg," is deposited near to them, and the elder children are concealed somewhere at the other end. An hour after, as I walked along the shore, when the pairs of sleeping faces alone were visible, and the silence was complete, the scene wakened in my mind quaint reminiscences of childish fancies of dolls'-houses, toy-boats, Noah's-arks, and the little old woman that lived in a shoe. The next day, as the little people walked about in couples, hand-in-hand, all so silently and gently, speaking in a soft murmur if they spoke at all, and with an expression both in face and gait of such utter harmlessness and amiability, the idea of a colony of living dolls was still more strongly suggested. From a little distance their dress has a becoming and rather gay appearance; the cap, or bonnet, of the

women is quite elegant in form, and embroidered in many colours, sometimes being interwoven with gold and silver thread.

It must be bitter cold in the winter-time to live in these little boats, and sleep out on the water in the long dark nights, when the snow is falling heavily; but the Lapps are a healthy, hardy people, and these fishers, though poorer than the fjeld Lapps, have the advantage of breathing a better atmosphere in the summer-time: yet how they contrive to cover themselves in the winter I do not know. The reindeer skins, which the fisher Lapps use as bed covering and for clothing, are obtained from the fjeld Lapps in exchange for dried fish.

The fjeld Lapp is a considerable capitalist, a flock of 400 reindeer being only sufficient to support a family; and such a flock is estimated by Mr. Laing to be worth about 120*l.* It is said that many of them possess hoards of buried treasure in the shape of silver coins, cups, spoons, &c. The captain of the steamer showed us some silver spoons and small silver drinking-cups he bought of a Lapp. The spoons had a very large bowl and a short twisted handle; the cups were ornamented with a rather elaborate, pricked pattern; the workmanship of both was very rude, but the metal contained very little alloy. Still they are practically in a state of extreme poverty, and sometimes suffer great privations: those who have not enough reindeer to subsist upon, combine the avocations of both fjeld and fisher Lapp. The number of Lapps in Norway, according to the census of 1847, was 14,464.

There is considerable variety in the expression of features of the Lapps here: some are very like idiots in feature, and, from the size and form of the head, cannot be far removed from idiotcy in mental capacity; others express considerable intelligence; but with the exception of the proud five-feet aristocrat on board the steamer, I have seen none who exhibit any considerable amount of energy. They all have small brains, even in proportion to the body; and an expression of extreme gentleness and amiability is common to them all: they appeal to one's sympathies most powerfully.

After visiting the consul, as in duty bound, some of the party making sundry purchases of skins of white bears, silver foxes, &c., we, at the consul's recommendation, ascended a hill called the Thief Mountain. It is about 1,500 feet high, with a good deal of snow upon its sides, which has to be scrambled over with that sort of hard labour usual in ascending steep snow inclines. The heat was most oppressive even on the snow. The mountain commands a good view of the low hills and bluff headlands of the coast; which, however, are not very striking: we were told that the North Cape is to be seen from it, but this I doubt. The island of Mageroe is just visible on the horizon; but as the North Cape forms its northern extremity, it does not seem possible to see it from the south. Tourists who are excessively anxious to *say* that they have seen the North Cape may, perhaps, satisfy a pliable conscience, and save the week's delay by ascending this hill and looking over the place where the North

Cape undoubtedly is, but seeing only the dim outline of the island on which the North Cape resides. The ascent of this hill affords a very interesting opportunity of witnessing the effect of altitude on the growth of the birch. The trees at the foot of the hill are in some instances eight or ten feet high; but on ascending they gradually diminish to Lilliputian plants of six or eight inches, though still having the form of mature trees.

We—that is, "He with the white beard," "He with the red beard," "He with the large beard," "He without a beard," and "He with a veil,"—breakfast and dine at the chief hotel. Breakfast of tea, salmon, eggs, and cold roast reindeer, for 1 mark 12 skillings, or 1*s.* 4*d.* Dinner of salmon, hot roast reindeer, and sweetmeats: the dinner cost 1 mark 15 skillings, or 1*s.* 6*d.*, each—the wine 1 mark 12 skillings, or 1*s.* 4*d.* The reindeer makes a very good dish; it is something like beef, but of shorter flavour, and bears about the same relation to beef that our park venison does to mutton. The wine was excellent, and the variety rather astonished us. For the instruction of those who are curious in epicurean statistics, I append a faithful copy of the carte, which for a rude wooden inn within the Arctic Circle, appears rather luxurious:—

Priis courant over Olhallens Vine, &c.

	Per flok.				Per flok.		
	*D.	M.	S.		D.	M.	S.
Champagner . .	1	3	0	Musak Lünel . .	0	3	12
Tokayer . . .	1	3	0	Ditto Picardin . .		—	
Lacryma Christi .	1	1	0	Portvin gammel flin (fine old Port) .	1	1	0
Cap. Constantia .	2	2	0				

* A specie-dollar is worth about 4*s.* 6*d.*; a mark, 10½*d.*; a skilling, rather less than one halfpenny.

	Per flok.		
	D.	M.	S.
Portvin gammel fiin (fine old Port)	0	4	0
Madeira, gammel drey (old dry Madeira)	1	1	0
Ditto	0	4	0
Portvin hvid (white Port)	0	4	0
Sherry, old	0	3	0
Tennerif	0	2	0
Malaga	0	2	0
Chateau Larose	0	4	8

	Per flok.		
	D.	M.	S.
Chateau Lafitte	1	0	0
Chateau Leaville	0	3	8
St. Jullien	0	1	16
Rihnsh viin	1	1	12
Haut Sauterne	0	2	12
Cherry Cordial	0	3	8
Sherry, god	0	1	16
London Brown Stout	0	1	12
Ditto half	0	0	20
Ale, Edinburgher	0	0	20
Ol	0	0	8

We met some Englishmen here, and a German artist, Professor Hildebrandt, who had just returned from an excursion to the North Cape. We fraternized, of course, and our party was thereby enlarged.

The heat was surprisingly great, and the musquitoes most annoying. An odour of hot cod-liver pervaded the whole of Hammerfest; and if there be any virtue in cod-liver oil, this must be a paradise for consumptive patients. This odour from the cauldrons of stewing liver, which is common to all the northern stations, is very disagreeable at first, until the nose becomes educated to it. Walking along the sea-shore, I was struck with the smallness of the shells; of which there is a considerable quantity, including several species of Gasteropods: the common periwinkle, for example, is very abundant, but about one-third the average size of those on our coast. I saw an abundance of the shells of small Echini, but no Actiniæ, either here or at Tromsö or Bodö.

On the outskirts of the town is the termination of the great meridian line of 25° 20′, drawn from the Danube, near Rustchuk, to the Arctic Ocean. This is, I believe, the longest meridian-line that has been care-

fully determined. An obelisk marks it, and bears the following inscription:—

DET NORDLIGE ENDEPUNT
AF DEN MERIDIANBUE PAA 25° 20′
FRA DET NORDLIGE OCEAN TIL DONAU FLODEN
IGJENNEN
NORGE SVERIGE OF RUSLAND
EFTER FORANSTALTNING OF
HANS MAJESTAT KONG
OSCAR I.
OG
KAISERNE
ALEXANDER I.
NICHOLAS I.
VED UAFBRUDT ARBEIDE
FRA 1816 TIL 1852
UDMAALT AF
DE TRE NATIONS GEOMETER.

BREDE 70° 40′ 11″·3.

The which signifies that here is "the northern termination of the meridian-line of 25° 20′ from the Arctic Ocean to the River Danube, through Norway, Sweden, and Russia, which after the ordination of His Majesty King Oscar I. and the Emperors Alexander I. and Nicholas I., by uninterrupted labour from 1816 to 1852, was measured by the geometers of the three nations—Latitude, 70° 40′ 11″·3."

The *Constitutione*, after two days' stay at Hammerfest, started to return, and our English party was augmented by Professor Hildebrandt (who speaks English so well that I at first mistook him for a Scotchman) and the three Englishmen who went to the North Cape: they were students from Oxford, and immediately on going on board subjected me to a severe humiliation. I should

here confess that it has hitherto been my habit to crow over every English tourist I meet, on the matter of travelling economically; and I had never before found a successful competitor in this respect. During a six-months' tour in Italy, my whole expenses, board, lodging, and shoes, including theatres, cafés, and all other dissipations, besides fees to cicerone, &c., averaged only 18*s.* per week; and yet I saw and did everything that a conscientious tourist who obeys his Murray is bound to see and to do. Last summer I made an excursion, starting from London to Dunquerque and Lille, through Belgium by rail; stopping at the principal towns on the way, "doing" the hotels de ville, the churches with their carved pulpits, &c., and the picture-galleries; then up the cockney portion of the Rhine, ascending the proper quantity of "fels," castles, and lateral valleys; on from Mayence to Frankfort and Nuremburg by rail; and after doing the artistic oddities of that old town, proceeded by rail to Munich, where I spent four days; then by coach to the Tegern-see, and on foot through the Tyrol to Conegliano; by rail to Venice; stayed four days there; and then on foot through Lombardy, visiting some of the principal cities, and the Lago di Garda, Lago d'Isea, the Lake of Como, the Splugen, and Via Mala, Gorge of Pffefers, Lake Wallenstadt, and Zurich, and by Basle to the source of the Moselle; down the valley of that river to Nancy; then by rail to Paris and London. This trip occupied six weeks. I started with 15*l.* in my pocket, and brought a few shillings back; yet I visited theatres,

concerts, &c., and purchased maps and guide-books besides.

After having performed such exploits, and boasted of them considerably to my fellow-passengers all the way from Trondhjem to Hammerfest, my disgust and humiliation were most intense on finding that the three Oxonians had taken deck passage at one-third the fare I was paying: they rolled themselves hardily and bravely under the tarpaulins, and slept among trunks, baskets, and barrels—and Lapps and Norwegians. To be looked down upon by my fellow-countrymen as an effeminate, lounging aristocrat, an inhabitant of sofas, a sensual sitter upon stuffed cushions, while there were hard planks within reach, was more than I could patiently bear. I, who banter every friend whom I can catch in the fact of riding in a first-class railway carriage, upon the folly of paying three shillings per hour for the hire of a cushion, to be utterly outdone in such a matter by men from Oxford, where I had hitherto believed none were to be found with sufficient muscular energy to pronounce the letter "r" without drawling it into "aw!" This was the severest blow my pride could have possibly received. It was a source of great consolation, however, to find that the Oxonians did not like their deck passage: they looked very uncomfortable, and went ashore at Bodö, under pretence of ascending a mountain on the Swedish frontier; but, as I firmly believe, really to wait for the next packet and take saloon passage and claret without our knowing it.

This incident reminded me of several facts I have observed of late, tending to show that a change is coming over the spirit of travelling Englishmen. That stupid ostentation of expenditure, which was once a recognised characteristic of Englishmen, is now much less frequent; and all experienced tourists that I have recently met condemn it most heartily. It is well known that in Switzerland, or any other country where English swarm, the track of their wanderings is indicated by a trail of corruption. The character of hotel-keepers, waiters, guides, and all with whom they come in contact, is lowered. A people originally simple-minded, dignified, honest, and truly obliging, become servile, greedy, and extortionate, through the folly of some of our countrymen, who are mean enough to fling their money about in exchange for a flunkeyish adulation, which any man endowed with wholesome pride can only regard as despicable and insulting! The number of these essentially vulgar-minded people is decidedly diminishing; and this form of folly is now chiefly confined to very youthful puppies, or very raw tourists, who have just made their first escape from behind the counter, and are intoxicated with their own enterprise in venturing beyond Gravesend. A few of the modern French fops who wear light Newmarket coats, with vest and trousers of the same pattern, and keep a "bouledogue," a cab, and an English groom whom they call "Tom," do the same. These melancholy examples are very useful to us, for nothing is better calculated to make Englishmen disgusted with their own follies, than

the sight of a Frenchman caricaturing, by attempting to imitate them.

The great point to be achieved on the return journey from Hammerfest, is so to divide the sleeping and waking hours as to see that part of the coast which was missed during the sleeping time of the last passage. The grand scenery commences again from the entrance to the Oxfiord; where, as before, a party of Lapps were perched on the moraine which supports the flagstaffs. All the stations at which the steamer halts have the Norwegian flag flying. There is, however, no necessity for any such distinguishing mark. Even in a thick mist, a sailor with a keen nose can steer directly to one of these stations at this season of the year; the odour of stewing cod-livers is so decided, and so far diffused from the centre at which it is concentrated.

At about four o'clock on the second morning of our return journey we passed some remarkable glaciers near to the Havnes station: one of them very nearly reached the sea. We were near enough to examine them pretty fully, and with the aid of telescopes, or opera-glasses, to look down the blue *crevasses* which rib the lower parts. They exhibit the whole phenomena of glaciers at one glance: there is the snow field, or *nevé*, above, the source from which the true glacier is derived; the deep lateral valley narrowing downwards —one of the essential conditions of glacier formation;— then the ice torrent with its sharp billows and blue chasms, filling this valley and carrying with it in its

slow descent the blocks of rock forming the moraine; which when deposited at its boundaries will remain to mark its place, though the climate of the whole region should change and the ice and snow all melt away.

We made another halt at Tromsö, and all went ashore, proceeding as a matter of course to the principal hotel, the Belle Vue. The house was full—not of provisions—but of guests. We asked for breakfast, and were told by the host that he was very busy and could not give us any. We petitioned for dinner a few hours afterwards; but this was refused. We sued for wine or beer, and biscuits or fladbröd, or anything digestible or indigestible containing some amount of any of the protean compounds; but all in vain. We were made to understand that a Norwegian hotel-keeper only proposes to do a limited amount of business, and that nothing will tempt him to exceed that. We then returned to the ship, but could get no breakfast there, for it was washing-day—all were engaged in the swabbing of decks and scrubbing of cabins. A little bread and some chips of cheese were at last reluctantly brought, and which we very rashly refused on account of the smallness of the quantity and the ill grace of grudging with which it was served. We went ashore again, emboldened by hunger, and determined to besiege the town and force the natives to submit and supply our wants. We were eight in number, and proceeded first to the consul's, where we armed ourselves with bottles of ale and sauterne, and lumps of cheese; then to the baker's shop, where we insisted

upon loaves of bread, which were brought in ample quantity. We had, of course, neither glasses, plates, knives and forks, nor seats; but each man did his best, with his bottle, and loaf, and lump of cheese; some sitting on the baker's door-step, others standing at the counter or in the street. Before our meal was finished we had a large congregation of lookers on, consisting of all the little boys of Tromsö and a considerable proportion of the adult population, who silently contemplated our proceedings from the opposite side of the street until the performance concluded, when the little boys expressed their approbation by rapturous applause.

CHAPTER VIII.

A second visit to the Lapp encampment — Moral and religious savages—Condition of the Laplanders a proof of the high character of the Norwegians—Snow and sunshine—The English language a dialect of the Scandinavian—Few, if any, English words derived from the German—When to see Arctic Norway at its best—Bodö—The Threnen Islands—The ships of the old Sea-kings—Curious change in the tone and colour of the light at midnight—Etiquette of the dinner-table in Norway—Post-offices—The Leer Foss.

We paid another visit to the Lapp encampment, and ascended the hills above it, in the hope of seeing the reindeer, but did not find them. I observed many little things in the hut this time which I did not see before, for we were now received as old friends, with a sort of rude welcome and a more communicative spirit. The *kone*, or wife, had just gathered some wild herbs from the mountain side, which she was cutting up for soup, and storing in a bag of reindeer skin. Some *comargos* and other articles of reindeer skin were in course of tanning, being laid in a pan with strips of beech bark. Among the domestic apparatus was a highly civilized copper tea-kettle, besides some other copper vessels, and a pair of ornamental mahogany bellows. The pan in which the shoes were tanning, being made of thick copper, was of some considerable money value. What

would an English capitalist say of using copper for the construction of tan-pits? They showed us two vase-shaped silver cups, like common egg-cups, but a little larger, and some silver spoons with large bowls and short twisted handles; these were all of very antique pattern, with ornamental designs rudely pricked upon them.

There was a decidedly pretty girl peeling bark. We had read in many books that the inner bark of trees is used by the Norwegians and the Laplanders for food; but when we asked her whether she was preparing this for food, she seemed as much amused and surprised at the question as any Englishwoman would be. The idea of using such a material was quite new to her; but then she had never read any books of travel, poor thing, and could not be expected to know so much of the manners and customs of northern peoples as we literary and scientific folk. I found similar ignorance throughout Norway relative to the Scandinavian practice of eating horseflesh.

The more I see of these gentle savages the more I become interested in them. They are quite an anomalous race. Here they live in direct contact with the high civilization of the Norwegians, in free communication and perfect harmony with them. They are converted to Christianity, and from all I can learn have a better claim to the title of Christian than many of our own church and chapel goers; for besides attending to the outward forms of devotion, they illustrate the reality of Christianity by their simple, unostentatious humility, their loving gentleness to each

other and their neighbours, their contentment and disregard of the ambitious struggles, the greed of wealth, and all the pomps and vanities of the civilized world.

It is strange to see a people who can read and write, and who have family prayers morning and evening, still living as nomade pastoral savages; clinging in all particulars to the old habits of their forefathers, clothed in the skins of beasts, and with so much contempt for Manchester, Birmingham, and Sheffield, as to still make their own thread of the sinews of their own reindeer, their needles and pins of the bones, and their spoons of the horns. They are probably the only people in the world who do not use Staffordshire ware, and have not the willow-pattern plate among them. Whatever may have been the moral effect of reading and writing, Christianity, and the example of civilization, their influence on the industrial habits of these people is almost nothing. The brass-nozzled mahogany bellows, and the first-class copper tea-kettle, displayed as we should display a finely-carved Indian war-club or a Japanese cabinet, tended only to heighten the contrast between their habits and the modern usages around them: for it must be remembered that, as far as the Norwegians are concerned, this arctic portion of Norway contains some of the most refined, wealthy, and aristocratic people of the country; the traders in fish, who are in continual communication as merchants with the rest of Europe, especially with the southern Catholic portions, where the stock fish is chiefly consumed.

The present condition of these Lapps, their peaceful,

undisturbed existence, their freedom at all periods from persecution or oppression, is a grand evidence of the high moral character of the Norwegians. I am not aware of any other instance in the world's history of a people so weak, so helpless for self-defence, remaining for centuries in contact with an energetic, civilized, and altogether stronger people, and never attacked, pillaged, enslaved, or interfered with, except for the benevolent purposes of education and moral and religious improvement.

The Norwegians have recently converted them from their strange old paganism, the worship of Thor, with its conjurations, magical drums, and sacrifices to the stone effigy of the hammer-bearing god; have taught them to read and write, and when they fell into habits of drunkenness sent apostles of temperance among them. The efforts of these temperance missionaries have been highly successful, and the drunkenness so common among the Laplanders when Mr. Laing resided in Norway in 1834-5-6, is now very rare.

Those who talk about a law of Nature enforcing with unrelenting fatalism the subjugation and destruction of an inferior race when a superior and more highly civilized people come in contact with it, should visit this part of Norway, and study the present relations of the Norwegians to the Laplanders. They would then, I think, modify their expression of this law, and rather say that when a strong, brutal, selfish, and unscrupulous people come in contact with another people weaker than themselves, the self-styled civilized men endeavour to

rob, murder, enslave, or oppress those whom they please to call the inferior race; and if the difference of strength is sufficiently great, the "civilized" people succeed in their efforts. It may be imagined that the Lapps have remained unmolested by the Norwegians because they are so poor as to be not worth robbing either by legal or illegal processes. It is true that the fjeld they occupy is quite valueless for tillage, and almost so for pasturage; but this is not the case with the fishing ground. The Fjeld Lapp, as before stated, is a considerable capitalist, and, like all other capitalists, could not exist as such unless protected either by morality, law, or fighting. A full-grown reindeer sells for about three or four dollars. A flock of 400 reindeer is the smallest upon which a Lapp family can subsist; and a Laplander who has fewer is obliged to eke out his existence by fishing and shooting. The average value of the property of each family of the pure Fjeld Lapps is probably not less than 200*l.*; and this for the most part in a readily convertible form. It is not an uncommon case for a single family to possess as many as a thousand reindeer. If the Lapps were a sensual, drunken, or in any way improvident people, such a state of things could not continue, in contact with open markets, money, and civilization: they would sell their reindeer to purchase the means of present indulgence, and rapidly sink into abject poverty and starvation. If there were many sharpers among the Norwegians—"'cute traders," addicted to "swapping," these poor simple Lapps would long since have been tempted to their ruin.

If I were a Norwegian I should point to the encampments of these peaceful, defenceless little people as the noblest monuments of my country's honour: monuments more worthy of the nation's pride than the trophies of a thousand victories on the battle-field.

We started again about midnight. The weather was excessively hot. During the hottest part of the day the thermometer stood at 77° in the cabin, at 92° in the *rök lugar*, or smoking-saloon, a little cabin built on deck, and 108° in the sun: on shore, in the valleys, it must doubtless have been much hotter. The contrast of this glaring Italian, or, I might almost say, Brazilian sky, with the snow-clad rocks and glaciers dipping almost to the sea-edge, is very striking. It was a continual source of fresh wonderment; one of the few scenes which one does not become accustomed to, but retains its novelty day after day.

Among the incidents on board, was a discussion on the relative importance of the study of Latin and Scandinavian as a key to English. My own opinion of the matter is that the idea of studying any language as a means of understanding another, is absurd. Every language has its own special laws and characteristics, and these are best studied in its own classics, and not in those of any other language. It is true that there are certain general laws common to all languages—the laws of thought in their relations to the faculty of speech; but these are far better illustrated by English than by either Latin or Greek, inasmuch as English is compounded of so many other languages, and of the

best elements of each. It is a language that grows wherever it is planted, by virtue of its fitness to the human mind and its ample fulfilment of the requirements of thought and feeling; while the stilted Latin has withered everywhere, even on its native soil.

The common plea for the study of the dead languages—that it affords fine mental discipline and elucidates English—is merely an after-thought: a modern invention for propping up the remnants of an old barbarism. Everybody knows, and none better than those who ply this poor apology the most vigorously, that Latin was not originally introduced into our universities for any such purpose, but that its study is merely a remnant of the monkish effort to spread the spiritual dominion of Rome by making the language of old Rome and of the Church the universal medium of intellectual intercourse; an effort which, in the dark ages, was successful, on account of the great advantage of having any common medium of communication between the learned few, then so widely and sparsely diffused over the world. As the Birmingham manufacturers of shoe-buckles and gilt buttons made a loud clamour, and even petitioned princes and parliaments in favour of retaining the fashions which kept up the demand for their commodities; so, in like manner, it is quite natural, and perhaps excusable, that men who have spent their best days in the study of the classics, and earn their livelihood by teaching them, should argue until they at last convince themselves that the educational

commodity they bring into the market is the best in existence.

This matter was discussed on board with considerable earnestness, and then came the question whether, assuming that Englishmen require to learn some other language as the basis of their own, this should be Latin or old Norsk. The matter settled down into a convivial wager of a bottle of claret; the proposition asserted on the one side being, that, taking the vocabulary of Norsk words in Murray's *Handbook*, above one-third should prove to have common English words obviously derived from them. On examination, it was found that this was the case with about half the words, and of course the affirmer of the proposition won the wager. The loser, and some of the umpires, thought it probable that the words in that vocabulary might be selected on account of their similarity to English, and another similar wager was made upon the affirmation that if the Danish dictionary be opened at random sixty times, and the first root-word in the page be taken, above twenty of these root-words should have common English words so obviously derived from them as to be admissible by all the umpires: all technical terms and words derived from Latin or French being excluded. This wager was also decided in favour of the affirmative, though it was much closer run than the former. These experiments, easily repeated, show how nearly our language is allied to the Scandinavian; especially if attention be paid to the kind of words we get from this source. They are our common vulgar words: those

which convey the most familiar ideas in the most forcible manner; those which every good writer endeavours to use as much as possible, and which children first learn to use and always prefer. Good old hearty English is, in fact, a dialect of the old Norsk or Icelandic, as it is sometimes called; the language in which the Sagas are written. German is another dialect; Dutch, Swedish, Danish, and modern Norsk, are others.

There can be no doubt that during the period between the tenth and fourteenth centuries, England, Ireland, Scotland, Norway, Sweden, and Denmark, had a common language; for the Skalds or bards of Iceland visited these countries and there recited or sung their poems, many of which are still extant. Iceland at that period was the literary focus of Europe; her poets travelled from court to court, receiving high honours and rich gifts from princes and warriors, and then retired to their native land. It must be remembered that these princes and warriors were not literary, book-reading gentlemen, who could learn a classical language set apart for poetry; but rude fighters, whose enthusiasm could only be roused by purely vernacular poetry. The Danes and Saxons must have spoken the same tongue, or how could Alfred have sung in the camp of the Danes, or even have had the exploit put upon him by tradition? Anything beyond a difference of dialect would have been sufficient to disable even a literary man like Alfred from extemporizing poetry.

Without professing to be a philologist, I cannot help

expressing rather a decided opinion upon the practice of etymologists, who, finding that an English word closely resembles a German word, state that the English word is derived from the German. I do not believe that in the whole vocabulary of English, twelve words can be found (not of modern introduction) that have been derived from the German. The multitude of words resembling the German do so from having a common origin with the German; the English and German being separate branches from the same trunk, that trunk being the old Norsk. I do not, of course, affirm that German or old English is altogether derived from the old Norsk; for, of course, we had the Celtic, and some of the Roman elements introduced at an early period, while the German has, in like manner, its other ancient elements. If I might venture upon a theory, it would be that all we have in common with the German has been derived from the same source, but has passed through a different channel. We have received the Icelandic, or old Norsk, through Norway and Denmark, while it has reached Germany through Sweden; our deviations from the old tongue resemble the Danish, while those of the German are like the Swedish: the Danish words stand midway between ours and the old Norsk, while the Swedish stand in like manner between the old Norsk and German.

The grandeur of the Loffodens was considerably diminished on our return to them. The greater part of the snow had melted, and the rocky peaks appeared

diminished in magnitude, illustrating the effect of snow upon mountain scenery. I should advise those who wish to see this splendid coast to full advantage, to visit it at the beginning of July, or even a week earlier. The midnight sun may be seen for a month after the longest day, but every day considerably lessens the quantity of snow. The middle of June is rather too early, for then the weather is uncertain, and the mists have not yet cleared. When time permits, the best course would be to make the northward journey about the middle of June, spend a fortnight about the North Cape, Hammerfest, and Alten, and then return early in July. By this means the wondrous rapidity of vegetation, and something of the contrast between the northern winter and summer, might be witnessed; for there is no spring or autumn here, and winter changes at once to summer early in June.

The amphibious character of the Norwegians is seen at the stations, where children seven or eight years of age are paddling alone in boats around the steamer. They manage their boats admirably, rowing with a pair of oars, backing water with one hand and pulling with another, in a manner calculated to excite the liveliest envy in the breast of any of our amateurs of rowing. Even our own fishermen would think it unsafe for such young children to be out thus upon the sea.

We went ashore at Bodö, and the three Oxford students remained. The Norwegians of the coast seem to be but little addicted to hospitality; for the Oxonians had almost as much difficulty in procuring any sort of

shelter or sleeping accommodation here as we had to obtain food at Tromsö. I accompanied them for above an hour in their search for lodging, and when obliged to leave them to go on board they were still in some difficulty about it.

The sky was remarkably clear during this part of the return voyage, and the grand ranges of mountains far inland on the Swedish frontier, with their glaciers and snowy solitudes above, were seen still more finely than when we passed them before. The active business-like proceeding of the steam-packet, dropping and picking up passengers and luggage at the various stations of this busy coast thoroughfare in a country of classical antiquity, renders it difficult to believe that within sight are hundreds of square miles of ever-frozen solitudes whose desolation has never been broken by human footsteps.

The Threnen Islands which stand upon the Arctic circle are a range of barren rocks seen just upon the horizon, where they stand like the fragments of broken teeth, single and double. In the neighbourhood of these we passed a fleet of "yechts:" not *yachts* by any means, but quite of different build. They are vessels which carry the stock-fish from the Loffodens and the coast to Bergen, where they are shipped again for their southern destinations. These vessels are the most quaint, antique-looking craft I have ever seen, having immense breadth of beam with abrupt flat sterns, and prows standing half as high as the mast. The fish, besides being stowed below, are piled upon the deck in a square mass almost

as high as the prow itself. The odour of such a fleet is most remarkable: I was sleeping as we approached them, and the smell awakened me long before we reached the outermost vessel. They are rigged with one large square mainsail and a very dumpy topsail over that. They cannot be much addicted to high speed, but appear quite indifferent to any amount of sea; and if they struck upon a rock would probably rebound and go on ahead as though nothing unusual had happened. The vessels of the old sea-kings were doubtless such as these: in ships of scarcely greater tonnage, held together by wooden bolts, without chronometers, quadrants, or even a compass, they crossed the Atlantic, discovered and traded with America, and colonized Greenland more than three hundred years before Columbus was born.

On the fifth day of our return journey we passed Torghatten, and saw the sunset at about eleven o'clock, with all the grandeurs before alluded to. These glowing night effects are far finer when the sun sets at about eleven or half-past, than when it remains above the horizon altogether.

The daylight was the subject of a controversy almost as animated as that on Scandinavian *versus* Latin. I had observed that a perceptible change took place in the character of the light after midnight; that although the altitude of the sun is the same ten minutes before twelve as ten minutes after, and the amount of light probably the same, there is a perceptible difference in its character as regards tone and colour: the usual difference between

evening and morning, sunset and sunrise; the light having a warmer tint before than after midnight. I even ventured to affirm that a change took place at the moment of midnight. Professor Hildebrand, the artist, agreed with me in this; while one of the English passengers stoutly contested it, maintaining that we were self-deluded: the rest were neutral. I offered to test it by a "crucial" experiment, thus:—I was to abstain from looking at any watch or clock for two or three hours before midnight, and yet to tell by the change of light the moment of midnight, within five minutes one way or other; the sun being below the horizon or behind the hills. The experiment was tried on three successive nights, each time successfully; this success was most remarkable on the first night, when we were ashore at Bodö. According to the united testimony of our watches and the ship's clock, I was some twenty minutes wrong; on further inquiry, however, it appeared that the ship's clock had not been set since we left Tromsö, which is nearly five degrees to the west of Bodö, and as I had proclaimed it midnight twenty minutes before the clock, I was not above two or three minutes wide of the true time.

We afterwards found that our friend who so stoutly denied any difference of tint before and after midnight, was colour-blind as regards the complementary colours of red and green: though he had a keen, piercing sight, he could not distinguish any difference of colour between the red cover of Murray's "Handbook to Norway" and the green cover of Bohn's edition of "Forrester's

Norway." As the point at issue was a distinction between delicate tints of red and grey in the atmosphere, it was not surprising that he should have been quite unable to perceive it.

During this voyage many opportunities were afforded of observing the habits of the Norwegians. We had of course some of the upper classes in the cabin, and there was a bishop and a member of the Storthing among them. Spitting on the floor is evidently a common practice in polite society. Butter, an important article of food, is brought to table without a separate knife. Each person requiring a slice cuts it with his own knife, leaving a smear of gravy, or whatever may be upon his knife, as a contribution for the benefit of the next comer. The same is the case with the cheese. Saltspoons do not appear to have travelled so far north. These peculiarities may be to some extent attributable to the fact that the *Constitutione* is the worst appointed boat on the service.

We reach Trondhjem on the 21st of July, after an absence of thirteen days.

Why is it that post-offices here, and in all other parts of the world, communicate with the outer public through a wooden window-pane? Why have they not offices for business, with counters, such as bankers and other business people have? Is it a remnant of the old usages which required secrecy within the post-office, while the contents of the letters were being examined by the postmaster? In most of our own provincial towns the wooden-window system is still maintained, in spite of

the great and obvious advantages of the counter arrangement lately adopted in a few places.

I walk up the valley of the Nid to the Leer Foss, some three or four miles from the town. The terraces in this valley are very remarkable, rising to a height of above 500 feet, and forming fertile flats on which are some large, thriving farms; their huge storehouses (called störhaus here, from *stör*, large) have inclined planes from the road, up which the cartloads of hay are wheeled to the upper door near the roof, through which the hay is pitched down to the floor below, and the whole barn thus gradually filled. There is a lower door, nearly level with the ground, from which I suppose the hay is drawn as required in the winter time. Hay is of course the most important produce of the Norwegian farmer, as he subsists largely on the produce of his dairy, and during the long winter time his cattle must be fed entirely upon that which is gathered during the few weeks of summer. They make no haystacks, but keep all their hay thus loosely thrown into these wooden barns. Their harvest time is too short, and the quantity of hay too great, to permit of the careful stacking of our farmers; which is unnecessary here, as they scarcely ever sell any. These wooden barns may be built during the winter, when nothing can be done in the fields; the wood is at hand, and only costs the cutting, and this is but a small matter on account of the superabundance of water-power for saw-mills.

The Leerfossen are splendid falls. There are two of them: the upper one ninety-nine feet, and the lower

eighty-two feet in height, according to Murray. The river is about 400 feet broad, and of considerable depth. These falls are rather like those of the Clyde, but much finer. I think them equal to Schaffhausen, with the exception of the effect from that gallery built right into the falls of the Rhine.

There is a good point of view from a square stone platform at the first fall, just where the river bends in a glassy wave before the wild turmoil of the fall begins. There is another natural platform at the second fall, about two-thirds from the top; and from this point it is magnificent. The quantity of water thrown up by the rebound of this fall is remarkable; not merely spray, but tons of shattered water rise nearly as high as the point from which they fell, with a cloud of spray high above them. There was, unfortunately, no sun to show the iris.

The water of this fall is not all running to waste; a portion is doing the stamping, jigging, buddling, kieving, &c. of the copper-works close by, where all the processes from the crude ore to the sheet metal are carried on.

CHAPTER IX.

On foot again—The pedestrian's advantages—Terraced valleys again—Importance of eggs to the tourist—How to converse in a language you do not understand—The Orkedal—Probable centre of the great Scandinavian upheaval—Another explanation of the Torghatten tunnel—Fly-catchers—Tariff of refreshment for man and beast—A battle-field—Physiognomy of the Norwegians—Mercenary tenderness of the Surrendal cows—Norwegian beds and sheep-skin coverlids—I succeed in living within my income at the Quamen Station—The beard provocative of refinement—Female despotism.

On the day following, Tuesday, the 22nd July, I started again on foot, and bent my way westwards to the Orkedal. Every time I start upon a pedestrian journey I feel a sensation of escaping from imprisonment; for, no matter how free I may have been before, there is a sense of vastly greater freedom, of utter self-reliance, when alone upon my own legs, with a knapsack behind me and an unknown land before. This feeling impels one to step forward with long and eager strides, to revel in the rude, vigorous enjoyment of wild nature. It is under such circumstances that one feels the fact that simple physical existence is a positive pleasure; the mere contraction of the muscles, the inspiration of the sweet mountain air, the circulation of the blood coursing with strong vitality through every artery and vein, are

all strong pleasurable sensations. It is at such a time as this one feels unutterable pity for the pallid debauchee, who, by the aid of dainty cookery and costly wines, and feeble in-door revelry, makes such painful efforts to experience a wretched imitation of this genuine and delicious sensuous enjoyment.

The fortnight on board the steamer and in Trondhjem had been to me a period of effeminate, sloppy indulgence; but now I cast all this aside, and begin the true enjoyment of travelling. My breakfast this morning was a pennyworth of bread, bought in the town and carried in my pocket till hunger drew it forth, when I sat upon a stone and eat it: never was a banquet more delicious.

The first few miles of the route was the same as that by which I came to Trondhjem from the Dovre Fjeld; then the road bends over a hill commanding a fine view of the Guldal (the reader should remember that "dal" means valley, and all places with names thus ending are valleys,) and the valley of the Nid. Both of these rivers, the Gula and the Nid, are seen winding through the alluvium they have deposited in the form of the terraced banks I have before described, with groups of farms upon these small plains, churches here and there, and rich wooded hills above. The waterfall I visited yesterday was marked by the cloud of spray that hangs above it, and the fall itself was seen from a still higher point of the road.

The similarity of the terraces in both valleys is very remarkable; it is pretty clear that these valleys were

estuaries or fiords up which the sea penetrated, and that subsequent upheaval of the whole country has driven the sea back. If such be the case, all the valleys hereabouts must present indications of such terraces more or less distinctly marked, according to the quantity of detritus their rivers have brought down into the quiet waters of the ancient fiord.

The richness and beauty of these valleys contrast most strikingly and pleasantly with the wild and desolate scenery I had just left.

Several fine views of the Trondhjem fiord are obtained from different parts of the road, which ascends many hills, and crosses bright sunny valleys that bring down to the fiord small rivers which spread out into beautiful little lakes at several places; the banks of these lakes being rich alluvial slopes, studded with thriving farms.

I find that my note-book is quite enthusiastic over the scenery of this day's walk, but on re-writing it I have made some deductions; for it is always the case when coming upon scenery that contrasts strongly with what has preceded it, or on emerging from town to country, that there is a tendency to overrate the beauties which strike so freshly upon the mind. Had this been the last day of a long walk instead of the first, I should have thought much less of the scenery. Any one who has sailed up the Rhine on the way to Switzerland, and then returned by the same route, must have been struck with the great difference in the impression which the Rhine scenery made upon him on going and returning.

The enjoyment of the scenery was considerably enhanced by a luncheon of wild strawberries, which grow abundantly on the bank by the road-side.

I stopped at Bye station, where I had supper of ham and eggs and milk. The manner of cooking the eggs and ham is worthy of record and imitation. The ham is cut into small pieces, the eggs are beaten up and put into the pan, then the ham or bacon is added, and all are fried together, and served as a sort of larded pancake. All tourists who venture beyond the limits of hotels, who are not utterly dependent on "waiter, chambermaid, and boots," should learn as much as possible concerning the cooking of eggs; they should know how to make omelets of eggs mixed with anything whatever, and more especially with cheese. They should be aware of the fact that albumen coagulates at a temperature of about 380°, or 32° below the boiling-point, and becomes tough when heated above that; and therefore that to boil eggs delicately, the best method is to put them in boiling water, and then set the saucepan by the side of the fire for seven or eight minutes, that the eggs may be heated through to about 180°, and not to 212°. Eggs may be usually obtained where no other animal food is to be had, and they have the advantage of being reliably clean inside, even under the most unfavourable circumstances.

I was rather astonished at myself on finding that I could hold quite a complicated conversation with mine host, especially as I had failed to make myself understood in the morning only when asking my way. This

was something like progress in learning a language; or it would have been if all the difference had depended upon myself: but the host is an intelligent man, while those I met in the morning were not so; and the possibility of making a little knowledge of a language go a long way, largely depends upon the intelligence of the native who has to interpret the broken passages and put his own sentences into the most intelligible form.

The art of conversing fluently in a language which you do not understand is a very valuable one to the tourist: quite as valuable as that of cooking eggs; and having had as much experience in the one as the other, I may venture to give the reader a few rules to be observed, by attention to which this art may be easily acquired. First of all, do not carry a grammar, or if you do, never look at it; for in order to speak the language in a manner to be understood, utter ignorance of its grammar is a primary essential. Secondly, never attempt to ask for anything, or say anything, in the form of sentence given for the purpose in any of the "Familiar Conversation" books; and as a general rule avoid as far as possible the use of any sentences whatever. Thus, suppose the subject to be eggs:—the grammatical tourist looks to his "Conversations Lexicon" under that head, and finds a sentence such as this: "Landlord, if your fowls are in a flourishing condition, I shall be supremely obliged if you will do me the very great favour of preparing a few recently deposited eggs for my supper." He reads this from the book, pronouncing every word most incorrectly, and laying the

greatest emphasis on the adverbs and prepositions; and the poor host is in a state of desolation. The practical traveller never attempts to speak any complimentary phrases, but always looks compliments, shakes hands, smiles, nods, &c.,—sits down to the table, opens his mouth, points down the middle of it, and exclaims, "Eggs!" and not another syllable till assured that that one is understood. Instead of reading from the "Conversations Lexicon" such a sentence as, "Being rather dyspeptic, and occasionally subject to flatulency, I find it indispensable to my comfort to avoid eating hard-boiled eggs: will you, therefore, be so kind as to boil my eggs no more than is necessary to render them pulpy:"—he points to the eggs, and exclaims, "Soft!" If the subject be politics, instead of saying, "In the present aspect of European affairs there is reason to believe that rupture of diplomatic relations, or even actual hostilities, between France and Austria is imminent,"—he holds up his right fist, and says, "France," then his left, and says, "Austria;" then he thumps them together, and says, "fight—to-morrow." If you can thus divest your mind entirely of all prejudices concerning number, gender, case, tense, person, mood, and all sentimentalism relative to agreement with nominatives—using none but the words necessary for expressing the main ideas, omitting all the connecting words and those which merely express the relations of words, and taking care that each idea, before it is expressed, shall be mentally clear and definite, with a sharp outline and no metaphorical blurr or shading, you may learn to converse

intelligibly in any European language in the course of two or three weeks.

Many highly educated persons may have some difficulty in finding clear and definite ideas before expressing them; for having been educated on the false principle of attaching ideas to words, instead of words to ideas, their intellects are apt to run in a phraseological groove: words are necessary to the development of their ideas, and their thoughts are tuned to the jingle of a sentence.

To such people a definite idea standing out clearly before the mind in its simple nakedness has existed only in the forgotten experiences of childhood; and if many of their most cherished notions were thus stripped of the thickly padded clothing of words, in which alone they have ever seen them, the proprietors might be shocked at their deformity. To many persons, therefore, the speaking of a language before being able to make it into sentences will be a valuable corrective exercise in unchaining the mind from the slavish trammels of phraseological despotism.

Mine host informs me that English tourists are not in the habit of taking this route, and that none have passed this way for twelve months before; but that a Scotch Englishman who manages the copper-mines at Orkedal resides there.

My next day's journey up the Orkedal was similar to that just described. The Orkla Elv winds through a rich, terraced valley; the level of the upper terrace remaining constant; and therefore its height above the

river diminishes as the valley is ascended. The walls of these terraces are in some parts nearly perpendicular, and are evidently the cuttings made by the river which flows at the foot of these precipitous slopes. It appears that all the valleys opening into the sea at this part of Norway are alike in this respect, and thus afford evidence of an upheaval of the whole of this region to a height of some 500 to 600 feet. This lifting of the mountains and their sea-filled valleys has occurred at what geologists call a recent period; probably at about the time when Cheapside, St. Paul's Churchyard, Belgravia, and all the rest of the land on which the world's metropolis now stands, formed the bed of a quiet lake; when England, Scotland, and Wales were one cluster of small islands, and Ireland another; and when the soil out of which the plodding peasantry of France are now extracting the sweet juices that we sip in claret and champagne, was being deposited under the waters of a shallow sea.

Whether it was the same great heaving of the earth that lifted the Alps from a moderate elevation to their present towering heights—that raised sea-shells to the summit of Mont Pilatus, and formed the Righi and the Rossberg out of the cemented pebbles of a shingle beach—that carried upwards with it all the sloping plains of France, and united our scattered archipelago into the two islands; or whether there was another independent centre of upheaval for the north, which exerted its greatest energy at Iceland, and then lifted the sea-bottom to the surface with such sharp and abrupt action

as to crack the earth's crust and pour out the volcanic matter of which are formed the Snaefel Jokul, Hecla, the Sulphur Mountains, &c.—in fact, the whole of Iceland,—I cannot venture to say; though it does appear the most probable supposition that the north had its independent centre of upheaval, and that was somewhere about Iceland; for the traces of Scandinavian upheaval are the most distinct at the north-western portion of Norway; they are greatest at about that part facing Iceland, and the rising appears to come from that direction.

It has appeared to me, while writing the above, that a different theory from the one on page 84 may be given in explanation of the formation of the mysterious Torghatten tunnel. It is well known and easily understood that when a rock is washed by the sea-waves it is liable to be worn away; that if the rock is of varying composition as regards hardness, the soft parts wear away the most rapidly; and thus when a hard rock is traversed by a vein of softer rock, the sea washes out that vein and thereby cuts a little cove or gully, or excavates a cavern: or if the veined rock be lofty and surrounded by water, the vein is washed out to the height of the highest beating of the waves, and a tunnel or a natural bridge is formed.

We have abundant examples of this sort of action on our own coasts; especially on the Cornish coast, about the Lizard Point, where the rocks are composed of serpentine, veined with soft soapstone and other magnesian rocks of similar character. That fairies' play-

ground, Kynance Cove, is a most romantic example of this kind. All who have visited Tenby, know St. Katherine's rock, which at high tide is St. Katherine's island, and at low tide is beset by fair huntresses, armed, not with Diana's bow, but with hammers and chisels and india-rubber goloshes, intent upon dislodging the dianthus, niveas, venustas, roseas, and other aquarian treasures. This island is perforated by a lofty cavern or tunnel, partly washed out by the waves, and partly formed by the falling of the undermined rock; a tunnel which has a remarkable resemblance to that of Torghatten, with the exception that it is not so large, and its floor is the sea-beach; but if St. Katherine's island were magnified, carried farther out to sea, and then upraised some 600 feet, another Torghatten would be formed.

My explanation of the Torghatten tunnel, therefore, is, that when the whole northern coast of Scandinavia was some 600 feet below its present level, Torghatten was of course similarly lower; that the floor of this tunnel was then washed by the low-tide waves; that waves of previous centuries had, aided by other agencies, such as frost and the gravitation of over-hanging masses, formed this tunnel as an ordinary sea cavern, and the great upheaval had raised it to its present place. If this supposition be correct, the beating waves will have left traces of their action round about the island at the tunnel's level. There may be traces of like action inside, or even some remains of serpulæ, markings of balanæ, or other calcareous skeletons on the sides; or even a few loose shells

and rounded pebbles in some of the hollows of the floor of the tunnel or the crevices of the rock. Had I thought of this when upon the spot, I should have made an effort to go ashore and examine the tunnel, of which we have only such vague descriptions; and which might thus afford the most direct and clenching evidence, not only of the fact, but of the measure of this Scandinavian upheaval.

The Orkedal is a warm and sunny valley in the summer season, and by no means suggestive of the far north. The little lake in which I took my bath to-day was at one end quite carpeted with water-lilies; its beauty being suggestive of many a pattern for our carpet makers. The blue dragon-flies were fluttering over the surface of the water, laying their eggs, and making the most of their short life in the air, while their ferocious larvæ below were devouring everything within reach. On the banks there were growing in great profusion two species* of those curious plants, the *Droseræ*, or sun-dew, their leaves bristled over with the gluey hairs, upon which small flies were struggling or lying dead. Botanists are still puzzled to decide whether these plants, and their southern relatives, the *Dionæ*, or Venus flytrap, really catch the flies to feed on them, or whether they merely perform the functions of the "catch-'em-alive" papers that abound in London at the same season.

* One, the *Drosera rotundifolia*; the other having a long oval or nearly lanceolate leaf with a long footstalk, and whose specific name I am not acquainted with.

It has been suggested by some botanists that the *Droseraceæ* and the *Dionæ* should be included in one natural order. Should this be adopted, the name "catch-em-alivos," or, to Latinize the name, "catchem-alivaceæ," would be far preferable, and more descriptive and intelligible for this natural order than any Latin or Greek name that could possibly be coined.

At the stations hereabouts a printed placard is placed upon the wall of the travellers' room, in which is stated the regulation price of various requirements. As this is rather interesting, I have made a copy of it, of which the following is a literal translation:—

TARIFF

For Lodging, Provisions, &c., at the Inns ("giestgivergaard," literally lodging-giver-farms) of the South Trondhjem District.

	£	s.	d.
For a chamber with bed for one night or day * .	0	0	4½
Ditto, with ditto for servant	0	0	2¾
"Warming-up" a chamber and lighting with two candles per ditto	0	0	4½
One portion of hot meat, with bread and butter .	0	0	5½
Two portions ditto ditto . .	0	0	9
A portion — slice of bread and butter, with cheese, meat, or a pair of eggs . . .	0	0	3½
A large cup of coffee, with cream and sugar .	0	0	2¾
A small cup ditto ditto . . .	0	0	2
A large cup of tea-water, with cream and sugar .	0	0	2¼
A small cup ditto ditto . . .	0	0	1½
A *spölkom* of ale (about a pint)	0	0	1½
One ditto of sweet milk	0	0	1
One bottle of ale	0	0	2¾
One *bog* (a book or quire) of hay . . .	0	1	0½

* It must be borne in mind, that, during the summer-time, rooms are often let on the "Box and Cox" principle; as some travellers sleep during the heat of the day and travel through the light nights.

	£	s.	d.
A "botte" of chaff	0	0	1½
A feed of hay	0	0	1½
Stabling and attendance for one horse per night or day	0	0	2¼

SOUDRE TRONDHJEMS AMT,
20th June, 1855. K. ARNTZEN.

The Orkedal continues beautiful to the end, and the road passes over a fjeld into the Surrendal. The weather was painfully hot to-day; and I was rather surprised at seeing a lizard: one of the small olive-coloured species that are so abundant on the field boundary walls and dusty roads in Italy.

I passed over a battle-field hereabouts where thousands of the slain (ants) were stretched in death, some headless, some bereft of limbs, and others cut in half. This is the third time in the course of my pedestrian experience (the other two were in Switzerland and Italy) that I have found about a hundred yards of the road strewn with bodies, and fragments of bodies, of ants. I suspect that they resemble human beings, even in the matter of making great wars; for it is difficult otherwise to account for such scenes, where the evidences of violent death are so abundant and the victims have not been eaten by their destroyers. In the Surrendal there are terraces again; and as this valley has its outlet farther south, in the fiord on which is Christiansand, it affords evidence of the extent of the upheaval.

The people I have seen since leaving Trondhjem are remarkable for their clear complexions, blue eyes, fine square foreheads, and highly developed coronal region

of the brain; all characteristics of the best type of the northmen. There was less uniformity of physiognomy on the way from Christiania to Trondhjem than in these valleys, and still less among those who came on board the packet; where, indeed, the variety was very considerable. I observed there on the coast a considerable number of men of a very remarkable type, having extremely large and low heads, indicating great intellectual and animal energy, but only moderate controlling moral power. Such men go on well when they have pretty much their own way, and are not surrounded with very strong temptations, but are terrible when thwarted or tempted to evil enterprise: they are like the grizzly bear, a heavy quiet beast when undisturbed, but horribly ferocious if wounded. I fancied that these might be the descendants of the fierce sea-kings, to whom danger was delight, and who helped themselves so freely to whatever was left near the coast by any of the other inhabitants of Europe.

Here in the Orkedal and Surrendal, not one of these bull-headed men is visible; none but the mild, high-headed family.

The horses in the Orkedal and Surrendal are very fine animals, larger than those of the Guldbrandsdal and Dovre Fjeld. The cows are remarkably inquisitive; they followed me along the road, peeped into my knapsack and pockets, and licked my shoulders and back. The horses exhibited a similar docility. This tameness and absence of fear among the cattle is a safe indication of a kindly disposition of the people.

In my original notes is a long paragraph overflowing with sentimental tenderness relative to these affectionate cows, that have followed and overwhelmed me with such loving licks; but I do not transcribe it, as upon further reflection it is evident that the licking was mere cupboard love; for all cattle in inland and especially mountainous districts, have a strong propensity for salt, and they were merely licking the deposits from the sea spray that had fallen on my clothes during the recent voyage. The discovery of this explanation of their licking was mortifying to my feelings: man wishes to be loved for himself alone, and the spontaneous manifestations of these pastoral, unsophisticated cows seemed to respond to the heart's fond yearnings; but, alas! even the cows of Surrendal were licking me for the salt I carried.

I stopped for the night at the Quamen station, where I had supper of the fine deep-coloured trout fried in a lake of butter. Having finished the first bowl of milk and called for another, the hostess brought me a bucket of beer, very turbid and green, like the water of an ill-conditioned aquarium. I tasted it, of course, and tried to drink it, but failed. It may have been made from the *moltebeer*, a red three-lobed berry that grows wild upon the hills; but it tasted like an infusion of hay, salted.

At the other end of the bench on which I had my supper, the farmer, or "bonder," and his "housemen" were taking theirs; it consisted of a dark-coloured stiff porridge, made apparently of rye meal, dabbed on a

board, and had the colour, consistence, and appearance of Roman cement. The party were ranged around the board, each having a bowl of milk, some fladbröd, and a wooden spoon, with which he dug out a lump of cement.

My bed was of the genuine native Norwegian construction, an oblong box filled with straw, and over the straw a sort of blanket or rather rug, a canvas sheet above this, and a sheepskin for covering. I have no objection to this sort of bed when it is well made, and even prefer straw to feathers, if the straw be well laid and fresh; rough sheets, also, are better than smooth; and a sheepskin properly prepared, with the wool well cleaned, is the most luxurious of coverlids; but I have a decided objection to recent sheepskins, that still retain a considerable amount of animal moisture on the flesh side: such was the case with my sheepskin here, and its decided odour of butcher's shop was not provocative of pleasant dreams.

The next morning I had the remains of my supper, plus another bowl of milk, for breakfast. On calling for the reckoning I was told that it amounted to five skillings, about twopence farthing. Of course I was bound to inquire into the particulars of such an exorbitant bill, and found that the lodging was two skillings, and the food three skillings. I may mention that Quamen is beyond the boundary of the South Trondhjem district, and therefore the tariff above quoted does not apply.

I have had many experiences in cheapness, but this

supper, bed, and breakfast for twopence farthing surpasses all. Once in Italy I had a supper of maccaroni, stewed rabbit, salad, bread, cheese, and wine, and this with my night's lodging cost fourpence halfpenny: the lodging cost two soldi, or three farthings, the wine three farthings more, and the banquet threepence. There was abundance, and the charges were made on the most equitable principle; for the meat, the bread, and the cheese were weighed in their dishes before they were put on the table, and weighed afterwards; the loss of weight being charged to the consumer: a clean cloth was laid, and a neatly folded napkin provided.

I may mention, for the information of refined and fastidious people who regard the unshaven beard as a coarse institution, that I have observed that the practice of using table napkins among the poorer classes is exclusively confined to countries where the beard or moustache is worn. The table napkin is parent to many other refinements: for example, the method before alluded to of cleaning knives and spoons by sucking them is less likely to be popular where napkins are at hand and abundant; neither is the hostess or the servant so strongly tempted to wipe plates, &c., with the corner of a dirty apron, or, failing that, with the skirt of a dress or petticoat: practices by no means unknown to the British Isles. As may be supposed, this Italian hotel was not commonly frequented by English tourists. It was on the way between Genoa and La Spezzia. I had wandered from the main road, to keep along the ridge of the mountains that slope down to the Mediter-

ranean, and there on a bye-way, late at night, fell upon a solitary osteria chiefly resorted to by charcoal carriers.

The people of Surrendal seem all of the same family, they resemble each other so closely in feature. They are evidently poor, and the farms are small and indifferently cultivated. I am beginning to find that Mr. Laing's description of the comforts and well-being of the Norwegian peasantry is rather rose-coloured.

Smoked salmon is one of the commonest articles of food in all the valleys through which large rivers flow; it is invariably eaten raw, and the difficulty of breaking through this custom and getting it cooked is immense. At Honstadt, where I dined on the day following, raw smoked salmon was brought to me, and I very diffidently suggested to the hostess that I should prefer it fried a little. She would listen to nothing of the kind, and told me many times over that it was *rökd** (smoked), that she liked it *rökd* without frying, and her husband liked it the same; and she intimated that if I did not like what she and her husband and other people did, I must be a disreputable character. This sort of despotism is common to women of all nations, and its universal existence is my main argument against strong-minded women who advocate a female House of Commons.

The persecutions I have had to endure because I usually drink cold water at breakfast, are too incredible to narrate. I have heard a lady, otherwise gentle and kind-hearted, assert to my face that a man who does not love tea and coffee and drink it like other people is an

* Pronounced *reeked*: hence the Scottish word *reek*.

undomestic monster, deserving the dreadful doom of perpetual bachelorhood. If we had female legislators, summary laws would be enacted for the punishment of all such offences, and bachelors above thirty-five would perish at the stake.

There are several pretty waterfalls in the Surrendal formed by the tributary torrents that pour into the river. The trout and salmon are very abundant: I saw them darting about in the water and leaping at the falls. This must be a very paradise for anglers; but it appears that anglers are spoiled in Norway. He who in England would be in ecstacies at catching ("killing," I believe, is the proper word) a score or two of trout, averaging a pound weight each, looks with contempt on such small fry when here in Norway: anything under a 20lb. salmon is considered "slow" and cockneyish.

CHAPTER X.

The rich man's debt of courtesy to the poor man—Boating on the fiords — A storm — Luxurious quarters — Haymaking — An attempt at extortion—Outside piety and its usual accompaniments—The farmers' carts—A startled nightingale—The Norwegian *Ranz de vaches*—A corner of the earth unvisited by Englishmen—The Romsdals Fiord—Veblungsnaesset—Preparations for royalty—The glories of the Romsdal—The Mongefoss —Model glaciers and avalanches—The traces of ancient glaciers and avalanches probably confounded by geologists.

At Surrendalsöeren I tasted some of the troubles to which vulgar tourists are exposed, for this being the port station of the fiord, my pedestrian independence ceased, and I had to go up and down, begging and waiting for a boat and a couple of boatmen; for these, like hotel-keepers and all other people in Norway whose services are to be paid for, seem to make a principle of convincing you that the obligation is on the side of the person receiving the services, not of him who receives the wages: and there can be no doubt they are in the right in most cases, especially where the employer is much richer than the servant.

Thus, let us suppose the case of a professional man who has an income of 1,000*l.* a year, or say 3*l.* per day; which is about 6*s.* per hour for a working day of ten hours: he employs a labourer, and pays him 6*s.* for two

days' work; or, otherwise stated, he gives the produce of his one hour's work in exchange for twenty hours' of the labourers. It is, of course, true, that, owing to the superior skill and intelligence of the professional man, his one hour's work is equal in value to the twenty hours of the unskilled labourer: that is, when we regard it, as we must, from a commercial point of view; but when we look upon this bargain through the gentler sentiments of our moral nature, we must feel that the rich man's great natural advantages call for a compensating effort of courtesy and kindness to balance the account; for each man, if he is honest in his work, strives all the while to do his best—the labourer strives for twenty hours, the more fortunately educated but for one; there is, therefore, a balance of nineteen hours of moral effort, or striving to benefit, in favour of the labourer, which demands, at least, the payment of moral acknowledgment.

All that we experience of class animosities and democratic discontent is nothing more than the instinctive effort of the labourer to obtain the settlement of this balance, and if it were justly and universally paid all such bitterness would soon be at an end. I have put the case of the professional man who earns his 3*l.* per day. How much more strongly must it apply when the advantage comes by inheritance—when the rich man receives, without any material effort on his part, such showers of good offices from his fellow-men, who feed, and clothe, and lodge him; who till his land, and devote their utmost skill to surround him with

elegance and luxury! Truly the rich man who is not kind and courteous, and thoughtful of the feelings of his less favoured fellow-men, is the most ungrateful animal that lives; for even the caged tiger is gentle to the attendant who brings his daily food.

The charge for boats is twenty skillings per man per Norsk mile, and eight skillings for the boat. Two men are always required for anything beyond a mere ferry distance in rough weather; three are often necessary, even when the tourist pulls in aid; the minimum cost is, therefore, about 1*s.* 9*d.* per Norsk mile of seven English miles, and to this must be added the "tilsigelse," or fee to the station-master, for finding and engaging the boatmen, as the whole payment they receive is their own: the "tilsigelse" is four skillings, or about 2*d.*, for each journey.

I know of nothing more luxurious than a boat ride after some days' walking. Any kind of riding is enjoyable then; but to lie down in the stern of a boat that is gliding over smooth water, and to revel in beautiful scenery, without any effort, when the muscles are capable of positively enjoying repose, is the most enjoyable of all. My destination was the Bolsaet station, about two Norsk miles from the starting point. The first half of the journey is along the narrow arm of the fiord which runs up into the Surrendal, then out into the main fiord, and across another and wider branch. While in the Surrendal Fiord we kept close to the precipitous rocks with which the richly-wooded mountains that dip into the fiord terminate. The scenery is fine throughout. I had

hesitated whether to walk along the shore for the first Norsk mile to a small station marked on the map, and did not regret taking the boat upon seeing the sort of ground I must have gone over. It would have been, not a walk, but a scramble and a struggle through a pathless and precipitous pine forest: the seven English miles would have cost at least seven hours of severe toil.

The luxurious lounging before spoken of was only of about two hours' duration, for a storm arose just as we commenced crossing the wide part of the fiord; the rain poured heavily, and the wind ahead rendered all our best efforts at the oar necessary to make any headway at all. I was surprised at the manner in which so small and light a boat could weather such a sea; the short sharp waves were breaking continually, but she shipped scarcely any.

These boats are cunningly built: the thin strip of bulwark slopes outwards, instead of rising perpendicularly, so that a breaking sea catches them underneath; they jump at it, but scarcely any water comes over. Nevertheless, had I been alone in such a walnut-shell, I should have prepared for swimming and run for the nearest shore; but seeing that the boatmen kept their course without any uneasiness, I of course was satisfied that all was safe. After some three hours more of hard pulling, we got across, and landed at about midnight; then I found that Bolsaet is merely a boat-house and some cowsheds, and that Baekkan, the station for sleeping, is four miles farther on. This was not altogether

unwelcome news, for, the rain having ceased, such a walk I knew by old experience to be about sufficient for the purpose of clothes-drying.

The road passes across a wild and desolate moor, with a few stumps of spectral trees that start up here and there out of the misty semi-darkness; for now the nights are just beginning. At about one A.M. I reached quite a charming villa, that I could not have ventured to suppose a station but for the well-displayed sign. I knocked, and waited awhile, when two young ladies—I am using no hyperbole, no complimentary phrase of mere formality, when I say two ELEGANT young ladies—bade me, with the best-bred politeness, to enter, and showed me to a well-furnished room. There was nothing of the wooden, peasant farmhouse character about anything; and I rubbed my eyes to be sure that I had not fallen asleep on the wild moor, or been enchanted by the spectral stumps. A supper of veal and milk, with real wheaten bread, served with courtly politeness by the elegant ladies, was of so decidedly material and solid a character as to convince me that it must be reality.

My bedroom was not a straw and sheepskin affair, but quite an elegant apartment, containing a tent bed with lace curtains, with a stuffed eider-down tumble-off cushion coverlid; such as you have on your bed at night, and pick off the floor in the morning, in Germany.

I felt the want of a few phrases on this occasion, in order to apologize properly for disturbing these young ladies at so late an hour; for, to be candid, I must con-

fess that my method of conversing in an unknown tongue works better in rural than in polite society.

In the morning I had coffee brought to my bedside, as at the Guldbraadsdal, with the addition of white biscuits; and afterwards a breakfast of veal and tea, with wheaten bread again, which I had not seen since leaving Trondhjem. At breakfast the courtly attendance of the two elegant young ladies was repeated; there was a servant, but the ladies only waited at the table. It is the old Norwegian custom, that the lady of the house, or her daughters, of whatever rank, shall wait upon the guest: this is the very climax and perfection of hospitality; though rather embarrassing to an Englishman, who feels it his duty to attend upon the ladies. The contrast of the straw and sheepskin bed with the *romancementivora* of the night before was very curious.

Crossing another branch of the fiord to Angvik, I walked for some miles through the rain over a dreary moor. The people here make hay, not only while the sun shines, but in the midst of the rain: they place a long rail on a series of legs about six feet high, a sort of hay-horse, and throw the grass or hay across it; evidently to keep it from soaking on the ground, which is swampy hereabouts.

At the station of Haegheim I encountered the first example I have met with in Norway of an attempt at petty imposition. I called for a bowl of milk, for which the hostess demanded four skillings, or nearly twopence; the usual charge being two skillings, and sometimes only one. I threw two skillings on the table,

and looked fierce; whereupon the woman picked up the two skillings and slunk away to the adjoining room, where a lazy-looking man was sitting; a grumbling dialogue followed, from which, and the physiognomy of both, I inferred that the poor woman was honestly disposed, but her husband forced her to overcharge the guests. On leaving the house, I observed written over the door in conspicuous letters some proverb or motto about fearing God. I have unhappily found it a rule, without any exception, and applicable in all countries, that people who parade their religion outside, and set up pious sign-posts in their actions or conversation, are mean, selfish, and dishonest.

The carts used hereabouts are very simple and ingenious in construction, and might be copied by our country folks at home with advantage, where the usual springs are found too expensive. The shafts are made long, like those of the carriole, and the cart is balanced on the same principle; but in addition to the spring from the elasticity of the shafts, another is provided by fixing the seat upon two long thin strips of wood fastened to the rail of the cart, and forming a sort of spring-board, upon which the seat rests.

On reaching the Fanne Fiord grand scenery recommences. The apparent uplifting of the coast into the air, referred to at page 158, was very strikingly exhibited about the promontory on which Molde stands.

At the Lönsaet station, where I stopped, I met a very intelligent Norwegian who spoke English, and who gave me many useful hints as to my future route.

Among other things he told me of a waterfall which he considered the finest in Norway, but of which no mention is made by Murray or in the Road-book published by Bohn: it is the Skiggedal Foss, which I determined to visit if possible. At this station there were German beds again, and in the morning café au *lay*, as a wretched punster calls it.

I started by boat again, and, crossing the Fanne Fiord, walked over the isthmus from Dvergsnaes to Söllesnaes. It is a flat country, an alluvial deposit, partly moorland and partly pastoral. At one part, the road, after an abrupt turn, comes in a line with a broad grassy avenue of remarkably park-like character. Far away in the distance I heard a melody so wild and shrill that it seemed scarcely possible to be produced by human voice; but after walking about half a mile along the green avenue, I came upon the singer, a girl, who, amidst a community of happy ruminating cows, was lying down and warbling most wonderfully. Her face was turned away from me, and as my steps were noiseless upon the soft grass, I came quite near to her, and lying down, remained unheard and unseen, listening to her singing. The old Greeks, who understood such matters very well, represent the sirens with sweet voices as well as pretty faces, and tell us that their voices were the most potent with their victims. They were right: there is a wonderful fascination in the tones of certain voices, and this was one of them. I fell into a most romantic and sentimental mood, without seeing the face of the sweet warbler. She sang a kind of *ranz de vaches;*

but the "yodl" was much wilder, more shrill and rapid, than any I have heard in Switzerland; the sudden breaking from the lightly-touched contralto notes into the piercing liquid falsetto, was marvellous for sweetness and rapidity: some of these falsetto notes seemed to me higher than any I had ever heard produced by the human voice. Unhappily, before ten minutes had passed since I had laid me down to listen thus at leisure, she turned her head and saw me there. In an instant, she sprang upon her feet, and bounded like a startled hare into the wood hard by. She disappeared quite out of sight, hidden by the tall stems of the pine-trees. I waited for some time, hoping that she might take courage and return; for I felt that it would be too impertinent to follow her. But she did not even peep from her hiding-place; so I walked mournfully away, and very slowly, looking back very often; but the cows were ruminating all alone, and no more "yodling" was heard. I wished for riches and leisure, that I might linger hereabouts, and learn where she lived and all about her, make her acquaintance, and then employ great masters to cultivate her voice and teach her all the mysteries of music. I cannot say whether she was pretty, though I feel morally certain that she must have been. I only saw that she had large bright eyes, which seemed to flash with terror as she started up, and that her figure was slight, as she bounded into the wood.

Soon after this, I arrived at the little cottage-station of Söllesnaes, where the hostess, a simple woman, on finding that I was an Englishman, stepped back a little

distance to examine me at full length, then fetched her husband and two children to look at the "Engelsk;" and they examined my hat, boots, and knapsack, with intense interest. It is really refreshing to find a corner of the earth unvisited by Englishmen. I doubt whether even a Scotchman has been here within the memory of a generation; for the very few visitors who come down the Surrendal and over to the Fanne Fiord, all go, of course, to Molde, the great town of the district, and proceed from thence to the Romsdal. I am no lover of great towns, and usually skip them, unless Murray is imperatively emphatic upon their lions.

The little promontory I had just crossed is "nobody's way to nowhere." With the host and his son, I rowed across the fiord to Alfarnes. The boat was smaller and slighter than any I have been in on the fiords before, and a squall arose, more vigorous than the one I before experienced. The water did come over the sloping bulwark this time, and the little boy, who pulled bravely for above an hour, began to cry with fear; not, however, until after catching a dozen or so of "crabs," and tumbling each time over the seat. It is very difficult to row amongst these sharp short waves, and I found my hands severely blistered and bleeding at the journey's end. The poor man only demanded 16 skillings for his two or three hours' hard work, and the boat had to be taken back again. In such a case, the value of the small stock of fish-hooks, artificial flies, needles, steel pens, and cases I had brought with me,

was proved; a present of a few of these things being received with immense delight. I should advise all tourists who propose penetrating to the less-frequented parts of Norway to carry a few such portable trifles. Artificial flies are specially acceptable. On the main highways, the coin of the realm are the best; but in such places as this, a little present, which is not a mere business payment, but a friendly offering of gratitude and good-will, is estimated far beyond its uttermost value.

My dinner at the station where we landed was a thorough Norwegian repast, consisting of the Roman cement, with butter, and some sour curd. I now learnt the reason of that strange sweeping motion of the hand and the stretching out the spoon at arm's length, which I have observed to be the universal habit of the people when eating such a dish as this: it is because the curd, being a sort of new cheese, draws out into strings, which otherwise would fall upon one's clothes. No charge was made for this, and when I offered 8 skillings, about 3½*d.*, the woman of the house was amazed at my prodigality, and thanked me most cordially in the expressive Norwegian mode of shaking, or rather squeezing, hands.

After this crossing of the water, came another crossing of the land—an isthmus like the last; but the road now skirts a narrow branch of the fiord, studded with rich wooded islands, and backed by the purple and snow-patched mountains of the Romsdal. The landlocked termination of the fiord forms one of the

most beautiful lakes I have ever seen; a splendid subject for a picture. Crossing the Romsdals Fiord, which well deserves its fame for stern and rocky grandeur, I found that Veblungsnaesset is not merely a single farm station, but an actual wooden village of forty or fifty houses, with a real hotel. I made my way to the principal apartment of this hotel, which was furnished in a most reckless manner, with real mahogany chairs, French-polished, big table, and little tables, and sofa of the same, with horsehair cushions, and a carpet. Feeling very much embarrassed, though nobody else was there, I was obliged to leave the room, to rub my boots again upon the great door-mat of pine and juniper twigs, comb my hair, and put on a collar and a neckerchief; for, besides the furniture I before mentioned, there was a chandelier and a looking-glass.

But I was soon relieved of my embarrassment; for just upon re-entering the state-chamber, the hostess came forward in a state of evident alarm, and showed me upstairs to a comfortable but unpretentious bedroom, constructed as usual of native deal, and furnished with the same natural material.

Respecting the origin of all this mahogany, horsehair, carpeting, and chandeliering, I cannot give the reader any certain information: whether the house was accustomed to that sort of thing, or whether it had been thrown into a state of abnormal magnificence on account of the expected arrival of the Crown Prince, who was then making a tour through Norway, and would shortly arrive here. But I was quite convinced

that the room was specially set aside for royalty; for nothing else could have induced the hostess to have shown me to an inferior apartment, after I had put on the shirt-collar.

Veblungsnaesset is the port of the Romsdal, which valley is the "lion" of all Norway: the Norwegians themselves travel long distances to see it. In the "Christiania Illustrated News," there are numerous woodcuts of its finest scenic features, and every Englishman who comes to Norway is told that he must see it, and his expectations are raised to the highest. This loud heraldry of scenic fame is a severe trial to any place: it is like making a man mayor for the third time; unless really great merits are possessed, criticism is sure to be ruinously severe.

My next day's journey proved, however, that the Romsdal can safely bear this terrible ordeal of much-repeated praise. It throws its gauntlet of defiance even at the feet of the mighty Alps themselves; for it combines in one valley so many of the elements of savage grandeur. It is more like Glencoe than any of the valleys of Switzerland; and is, in fact, remarkably like Glencoe, but on a very much grander scale, with snow and ice and countless waterfalls superadded. Not only in the physical aspect of its dark, frowning rocks, but in the gloomy record of slaughter does it resemble Glencoe; being closely associated with the story of the 900 Scotchmen who landed at Veblungsnaesset, marched up this valley, were surprised, and all but two slain. When I started, the conical peaks of the mountains

were buried in threatening clouds; then came a storm of rain and hail, without thunder, and the body of the clouds dissolved, leaving only some ragged fragments of white mist, which clung about the torrent gulleys of the mountain sides, and then slowly melted into sunshine. All the torrents and cascades were at work, and doing their utmost. Every kind of waterfall is here—from the rapids and roaring leaps of the Rauma, which runs through the bottom of the valley, to Staubbachs innumerable, Giessbachs, Reichenbachs, twin Handecks—representatives, in fact, of every type of waterfall, and rivals to the grandest of some of them.

On the right side of the valley as I ascended, the Romsdals Horn, a mountain of extraordinary steepness, springs out of the valley up to a height of 4,000 feet, like a monstrous shattered steeple; a labyrinth of similar ragged cones surrounding it. On the left side a mighty wall of rock rises directly from the road, till its notched and rugged edge seems to scrape the blue sky. This wall varies from one to two thousand feet in height. In some parts of it great scars are visible, where huge masses have scaled off and thundered down; these fragments may be seen below, cumbering the river-bed, and forcing its waters to roar and foam through the alleys between them. The course of the road has been turned to wind round such blocks; and in some places the blocks themselves have been blasted, and the road cut fairly through them. Above these scars an overhanging cornice may usually be seen;

which is the upper surface from which the fragment was detached. The heap of massive ruins below, the scar above, and the overhanging cornice over that, have a tendency to prevent the pedestrian who observes such things, from selecting these particular boulders for resting-places, or points from which to take a sketch; for, in spite of the doctrine of probabilities, the idea that another crash is just about to occur is suggested irresistibly.

To enumerate the waterfalls of the Romsdal would be rather a serious task; there are a dozen or two that would each support half-a-dozen hotels, and be perpetually sketched, photographed, and stereoscoped, if they were anywhere up the Rhine. If they were in Scotland, in addition to all this there would be lodges built opposite to them, with mirrors to show the waterfall overhead and all round the room at once, and sliding panels to start open and disclose the view unexpectedly. In Ireland there would be a score of gates on the roads leading to them, erected for the sole purpose of supporting juvenile mendicants, who would rush to shut them as the tourist loomed above the horizon, in order to be paid for opening them when he approached. But here they pour and dash down their own chosen courses, the wild, unfettered creatures of God's bounty. Here we may gaze upon them undisturbed, and revel in the wonder, gratitude, and veneration that such a scene awakens, by reminding us that He has so fitted our faculties to his works around, that every object or action in the universe has in it

some element of grandeur or of beauty capable of filling our souls with joy. There are those who tell us that this world is but a festering heap of wickedness and corruption; but the man who would fit himself for the reception of a higher manifestation of his Creator's bounty in another world, must first train his soul to be capable and worthy of fully enjoying the heavenly elements of this.

The most abundant and characteristic waterfalls of the Romsdal are those which come from an unknown source somewhere, and pour over the grand rock on the left. The finest of these is situated about half way between the Flatmark and Horgheim stations: it is called the Mongefoss. Looking up, with an effort that strains the neck, to the frowning wall of rock, a torrent is seen, pouring apparently out of the blue ether. It bends smoothly over the topmost edge, as blue as the ether itself, lustrous and crystalline with the light that shines clear through it; then it is lost, having made a first plunge of a hundred feet or so down into a boiling cauldron, which it has pounded out of the rock by its everlasting thumps; but again it reappears, shattered to snowy fragments, and striking the rock once more, spreads out and tears down a long, rugged slope, in white fleeces of broken water. At every resisting ledge, clouds of fine spray and mist are dashed forth; the sunlight tinting them here and there with bands of the glorious iris. Then a great ledge bars its path, and it bounds upwards and forwards into the free air; and thus bruised and battered to mere water-dust, so fine

and light that it struggles even with the slight resistance of the air, it descends with slow, unvarying speed some four or five hundred feet more; then it showers upon another slope of rock, spreads into a multitude of little rills, and disappears again, till at last it rushes under the road to join the Rauma, and keep its company to the all-absorbing sea.

This fall, to my taste, is far finer than the Staubbach: it does not shoot forward, clear of the rock in one leap; but its beauty is rather increased by this. Both in height and quantity of water it is far superior to the Staubbach. Omitting the first fall into the upper basin, and only considering that portion which is seen falling down the face of the rock in a continuous mass of broken water, it must be somewhere about a thousand feet in height.

I am aware of the difficulty of judging the relative merits of waterfalls—especially such falls as these—for they depend so much upon the circumstances of the weather. Doubtless, I saw the falls of the Romsdal under their most favourable aspects, so much rain having recently fallen; but this is no rare case, for, according to current report concerning the meteorology of the mouth of the Romsdal, it rains on an average somewhere about always.

In nearly all the breaks and hollows of the black precipitous rocks are patches of snow, some of them so low as almost to touch the corn-fields; for amidst all this savage sublimity there are rich substantial farms. These farms are due to the table-lands of the terraces,

of which there are two very distinctly marked, but not so lofty as those in the other valleys before mentioned.

Beside the snow patches there are Lilliputian glaciers in abundance, where the whole history of glacier formation is shown at a glance. There are the snow fields above, filling a basin from which dark peaks arise; the basin has a downward opening, or notch, leading to a little steep, trough-like valley, that closes in below. In the upper basin, the snow surface is thawed by the sun, the water sinks into the spongy moss below, freezes again on its way, and binds it all together as a seeming solid, but capable of yielding to the pressure of the mass above and the expansion of re-freezing; this pressure forces it through the notch of the upper basin, into the lower. As it passes over the bend from the lesser to the greater declivity, it is split upon its surface by this bending, and the blue crevices are formed. In squeezing so forcibly through this opening it polishes its sides, and the fragments of stone that are torn away or fall upon it become bedded into the ice, and when they reach the portion that slides upon the rock, they groove it with parallel lines that will mark the places where these glaciers have been, if in future ages they should cease to exist.

There are other snow basins which fail to form true glaciers, owing to the want of the trough-like valley below that closes in at its lower part. Yet in these there is evidently a downward flow, or advancement of the ice and snow, which is forced through the notch; but this

notch communicating with a long straight trough like a water gulley, the foremost of the advancing mass bends over till it becomes detached, and then forms an avalanche instead of a glacier. Several of these small avalanches came down during my walk: I mistook the first for a water cascade, until its cessation, and the thundering rumble which followed, undeceived me.

In these I found an explanation of the snow patches nearly level with the corn-fields; for each of the avalanches deposited itself as a sort of talus, or sloping delta-shaped heap, at about that part of the terrace deposit which must have been the shore of the ancient fiord. All these avalanche tracks are smoothed by the falling snow and ice and stones; they are probably scratched and grooved likewise, but this I cannot positively affirm, as they were all on the opposite side of the river.

I am not aware that the attention of geologists has been directed to this sort of avalanche action, as distinguished from glacier action. In our own country, and in almost every part of Europe, traces of ancient glacier action are found, or supposed to be found. These traces consist of smoothed rocks with parallel scratches, and heaps of stones that have come from some distance, and yet present no traces of being water-worn. The smoothing and grooving are attributed to the slow-moving ice, and the heaps are supposed to be the moraines, or the stony accumulations commonly found at the sides and terminations of glaciers.

Now here we have side by side with these small model glaciers as many small model avalanches, each with a regularly established track. If all the snows of the Romsdal hills were melted, I have little doubt that a modern geologist would confound the avalanche with the glacier tracks; he would find smoothed and grooved rocks on both, and a heap of angular stones at the termination of the smoothed rock. These would, according to received views, be regarded as the beds of former glaciers, and the remaining terminal moraine.

In this valley the confusion would not lead to any serious speculative error, for the difference in the causes producing either a glacier or an avalanche in this particular locality is so small—merely the form of the trough — that general conclusions respecting former climate would not be affected by the mistake. But there are cases where the distinction between the former existence of glaciers or avalanches would materially affect a grand hypothesis. It is inferred from the indications alluded to, that there existed what is called a glacial epoch, when the greater part of Europe, or even of this hemisphere, was subject to a much colder climate; and if all the observed smoothing, and groovings, and heaps were produced by glaciers it must have been so; for in order to produce a glacier there must be continuous snow throughout both winter and summer. If, however, these markings are but the vestiges of avalanches, a very small difference of climate may account for them; as regular periodical avalanches may

be produced by the winter snow of any hilly country, though that snow should be melted all away by the heat of each returning summer. Among the causes capable of bringing about such a result, surface configuration is a more potent one than climate.

CHAPTER XI.

"Gammel Ost" a new sensation for epicures—A royal cortège—Lost on the fjeld—False alarm—The "Cock of the mountain"—Risks of solitary mountaineering—Out for the night—Hard work on an empty stomach—Difficulty, delusion, and disappointment—Semi-starvation and its effects—The pastor of Lom—The social position and influence of the Norwegian clergy—The "pocket-pistol" a dangerous weapon.

My dinner at the Horgheim station consisted of "smoe-rogbröd" and "gammel ost," bread and butter and old cheese: charge 8 skillings, or 3½*d.* The gammel ost is a celebrated Norwegian dish, and this at Horgheim the finest example of it I have met with. It is a peculiar sort of cheese, made, I believe, with goats' milk mixed with herbs and sugar. When new, it is very detestable, but after many years' keeping it decomposes, and forms a sort of condiment rather than food. It is sprinkled in a moist powder, upon bread and butter. When in perfection, it is neither mouldy, moist, nor mitey; it is of a uniform pale brick colour, just capable of crumbling, and has a rich anchovy-pastish flavour with a faint suggestion of parmesan. If Fortnum and Mason, or Crosse and Blackwell, were to import some of this, put it into eccentric jars, and charge a sufficiently high price for it, our epicures would run into ecstacies about

it, until they discovered that it is really a cheap and vulgar article.

On arriving at Ormein station, where I stopped for the night, I found all engaged in preparation for the Crown Prince. The front of the house was decorated with pine and birch trees—not branches, but whole trees—stuck into the ground, and great scrubbings of floors were in progress. Two officers were there preparing for the royal reception; one of whom spoke English, and gave me much information respecting the various routes. I find it usually advantageous to fix only the general outline of my route, and to settle the details according to information gathered on the way.

There is a remarkably fine triple fall opposite this station; it is pictured in the accompanying lithograph.

The next morning it rained again. The character of the valley soon changes; the road ascends and passes along the slope of a hill; and the river being far below in a deep gorge, instead of being nearly level with the road as at first, begins to make cascades itself. One of these, about a quarter of a mile from the station, was sufficiently fine to tempt me down a path to see it even here, where one becomes so dainty and critical concerning waterfalls.

At the next station, Nystuen, there was a large assemblage of the peasantry from all the country round waiting to see the Prince, who was hourly expected. They were dressed in all their best, the men with fresh clean red nightcaps, and the women with bright ker-

J. Steeple Del.

M & N. Hanhart Chromo Lith.

VERMEDALS FOSSEN, ROMSDAL.

Published by Smith, Elder & Cº 65 Cornhill London 1859.

chiefs round their heads: all along the road I found family groups standing by the wayside. The horses were waiting at this station, where the whole party was to make a relay. A little beyond the station I met the *cortège*, which consisted of about a dozen carrioles and one leather-looking gig or chaise, in which the Prince was driving.

On the following morning I proposed to cross the fjeld to Skeaker, but it rained and drizzled, and the mists hung upon the moors, and my host, an intelligent man, spoke rather earnestly of the dangers of the fjeld under such circumstances. He was an intelligent man, who had read the saga of the old Scandinavian poets, and seemed well acquainted with them. I walked on in the afternoon to the next station through a widening portion of the valley, which hereabouts presents no very striking features.

From the Hoset station there is another track over the Kjolen Fjeld, and I started upon this at about seven in the morning. After passing over a plain of reindeer moss, I walk up a long wild-wooded valley, and reached some huts, or saeters, rather sooner than I anticipated, from the position they have on the map, according to which the track over the fjeld here turns off to the left. I accordingly crossed a bridge just erected, and found a track taking nearly the course required. The track was but an ill-defined one, and after a while I lost it completely out on the wild rolling moorland, over which I then steered by compass alone. After a few miles of this, I reached a ridge of mountains, and

ascended them to take a general survey, in the hope of seeing on the other side a lake which is marked on the map, and which would serve to verify my bearings. The lake, or rather two lakes are there, but I was beyond the western extremity, instead of being at the east end or beyond it, as I had calculated. This was very puzzling, and I lost confidence in my map—not in myself of course. Only those who have wandered alone over trackless mountains can understand the painful feeling of having relied upon a map, and then finding it deceitful; it is like being jilted after a long and confident courtship. The sense of doubt and confusion, the hesitation as to whether to consult the map any more, or, if consulting it, to look for details, or only to rely on general bearings, is indescribably perplexing and vexatious. Then I had started with such confidence, the track seeming so clear: the first half of the distance it followed a little rivulet, at the Loordalen saeters it turned at right angles, and over a ridge to a lake, and then over another to the long valley of the Vaage Vand. There seemed no possibility of mistake, so that I did not even take the common precaution of filling my pockets with food, and on passing the saeters made no halt for milk; though my breakfast was only a few chips of fladbröd and some "*smoer*," pronounced "smear," a good expressive English name or Norwegian butter.

After some halt, and hesitation between choosing the east or the west end of the lakes, I determined upon taking a middle course, and crossing the stream that

unites them. Even this was some miles to the westward, down a steep stony slope, then through a wilderness of bog, and across a wide pool-like stream about three feet deep and soft at the bottom. After this I found, still farther to the east, a little valley forming an outlet to the easternmost of the two lakes. This, according to my map, or the reading I then made of the map, should lead at once to the Vaage Vand, and nearly to Skeaker. I pushed on at a rapid pace, over rough boulders with deep holes between, with the object not only of speed, but of drying my clothes, which were wet to the shoulders; for the crossing of the stream was half wading, half swimming, and I had great difficulty in keeping my knapsack above water. Another motive to exertion was the pang of hunger, for being now about four o'clock in the afternoon the idea of dinner-time was irresistibly suggested.

During this walk I had an adventure or two. At one time, while admiring the utter desolation of the whole district, and concluding that hereabouts must be the summer home of the few remaining bears and wolves that occasionally visit the farmers of the Romsdal, a huge beast sprung up at my feet so suddenly, and with such fearful rustle, that all the bones of my skeleton seemed loosened in their fleshy imbedment by the start I made. It was not a bear, however, but merely a huge capercailzie, or "cock of the mountain," or "horse of the woods," as it is called. According to the usual accounts of this bird, it is so wild and wary that the sportsman has great difficulty in approaching it; but this started so

close to me, that I must almost have trodden upon it. It appeared larger than a turkey, with huge wings and tail; and the noise it made in rising was tremendous: a bear would have been far less startling at first sight. These birds are, I believe, quite extinct in Britain, though formerly abundant in the wilder regions of the Scottish Highlands.

I should not advise other tourists to venture alone over a fjeld like this; for, independently of the danger of losing the way, and being overtaken by the mists, there is a considerable risk of sprained ankles, when the path is lost. The slopes of the hills are covered with loose angular stones, heaped together several layers thick, with deep holes between them. To cross such ground as this, it is necessary to step carefully, but firmly, upon the angular summits of these blocks; some practice is required to keep one's balance, and to do this safely, as the stones are often loose, and rock, or even turn over, when trodden on. When they do thus turn, a fall is almost inevitable; grazed knuckles and bruised knees and shins follow as a matter of course; but if the foot should slip down one of these crooked holes, and the whole weight of the body pitch upon it, a sprained ankle or a broken leg is quite to be anticipated. Such a mishap is bad enough under any circumstances; but here, where no human being comes within hail for months together, to have to crawl for miles and miles over broken rock and bog, dragging a dangling limb, and, after hours of struggling agony, to faint and die in the wilderness without one farewell

word or glance of sympathy, would be worse than being shot down and galloped over on a battle-field.

I know of how little avail are all these prudent reflections: when the fresh mountain air is blowing in one's face and the early day is wakening, a reckless self-reliance is engendered, and all thoughts of possible suffering and weakness are driven out by the sense of iron strength that the purified blood carries with it to every limb. These influences, and the prospect of a vigorous battle with great obstacles, tempt one's footsteps from the dusty road to the crisp springing heather and the wild craggy mountain peaks. I never start upon a walk in a mountainous country without making sage resolutions to be most cautious; but all these wise resolves are broken before half the journey is done.

On this occasion, I soon found that I had got into something like a scrape; for, on reaching the end of the little valley, or gorge, it was evident that it did not lead to the Vaage Vand, with the church upon its banks, as marked in my map, but to a long dreary valley with a small stream winding through it, having no lake or any traces of humanity. It was evident that I had gone altogether wrong; and the possibility that it might be myself, as well as the map, that made the mistake, was suggested, but not without an inward struggle; for we all have our weaknesses and vanities, and one of mine is that I am a skilful mountaineer, and can find my way without guides over the wildest and most difficult of passable passes. I have done it often in the Swiss and Tyrolese Alps, even where glaciers stand

in the way, and the limits of the snow-line have to be passed, and but seldom made any serious blunder. It therefore wounded my pride most terribly to be almost forced to the conclusion that I had gone about ten miles too far east; for at such a distance from the proper track there are marked upon the map two lakes, connected by a stream just corresponding to that with the soft bottom that I had waded through; the eastern-most of these lakes having an outlet running down a narrow valley just in the direction of that I was following; this stream is tributary to another, winding through a long valley, that looks dreary even on the map, though it has one farm marked at its eastern end, some ten miles farther, and beyond the limits of my vision. This farm is called Skardvangen. My theory now is, that the saeters at which I arrived so much sooner than I expected, were not the Loordalen saeters marked in my map, but some others there omitted; that, therefore, I turned off too soon, and all the easting I made to get round the lakes was so much additional aberration.*

According to this, I was now, at five o'clock P.M., about as far from my destination as I supposed I was when at the saeters at ten in the morning, with the disadvantage of having no track to follow, and an

* This proved to be the fact, as I afterwards ascertained by inspecting Münck's map, where every farm and saeter is marked, and the configuration of the hills and valleys carefully given. I could not have made the blunder if I had had that map. Mine was only a road map—very good of its kind, but not sufficient for such solitary mountain wanderings.

unknown amount of difficulties and obstacles to overcome; for a range of mountains of considerable elevation still lay between me and the Vaage Vand. I continued southward, finding a faint track, then passed some cows, which all followed me, and jostled each other for the privilege of licking my hands, or my hat or shoulders. They evidently mistook me for their milkman, and expected their evening treat of salt. Finally, we—that is, I and the cows—reached a little saeter, a wretched hovel, filled with dirty men and a most abominable odour, vile enough to annihilate a fourteen hours' appetite.

They told me that my way was along a lofty ridge, which was visible in the far distance, running nearly east and west. It was about nine o'clock, and the sun just setting; for this being the 1st of August, the sunny nights are past.

Just before meeting the cows, I was much surprised at a bird of a light gray colour, and rather larger than a grouse, which ran before at a few yards' distance uttering a curious scream. At first, I thought I must be near its nest, and this was a device to draw me away, such as some birds will attempt; but it continued running before me, proving that it could not be so. Being desperately hungry, and having no prospect of supper, I took out my small revolver to shoot at it, and when just about doing so, I saw the explanation of its conduct. A large falcon, or small eagle, was wheeling round heavily over my head, and the poor frightened bird at my feet was seeking protection. To have shot it would have been like murdering a child; so I fired

every barrel at the dark enemy above, and succeeded in frightening him away.

After ascending to the first ridge, I found the track, which soon led to another valley, and from thence up the side of another mountain to a higher ridge. The night was now sufficiently dark to render it very difficult to keep the track: as long as it continued on rocky ground, it was easy enough, the angles of the stones being white where the lichen had been worn away by the feet; but whenever it broke upon a patch of reindeer moss, it was so far obliterated as to be no longer traceable. I had to cross such patches continually, and then to zigzag to the right and left till I came upon the stony track. This added considerably to the distance, which was computed by the men at the saeter as four or five hours' walk. At one spot, where a large moor had to be crossed, I wandered aside for above half an hour, being misled by a heap of stones, which I supposed to be a track-beacon; such things being common hereabouts, it was erected for this purpose, but it marks another track, which led me quite away from my course.* Being now in a prudent state of mind, I turned back to the point at which I lost the track, and went on zigzag till I again found it. I toiled on thus over angular blocks, through bogs, and across small streams, with mist and

* The track I followed is on the south side of the lake, or tarn, from which the river running to Skardvangen originates. On Waligorski's and Wergland's map the track from Skardvangen to Skeaker is marked on the N. side of this lake. The heap of stones referred to was at the head of this lake, and the path I came upon bent round the lake. It was probably that marked on the map.

some rain, for about six hours; when, a little after daybreak, I reached another ridge, from which the Vaage Vand and the Otta were at last visible.

The lake is of considerable size, some twenty-five to thirty miles long. I was at a great height above it, probably 2,000 feet, and the descent is very steep. Seen through the morning mist and my expectations, the lake appeared to terminate at the point directly below me, and the river there to begin, and continue onwards to the right through a long, flat, shingle valley. As the church and the station where I hoped to find some food are marked in the map at about the junction of the river with the lake, I determined to make a direct descent down the steep slope; which, being thickly wooded, may be safely done by clinging to the stems and branches of the trees, and swinging down from one to the other. Having been twenty hours without food or rest, I found the requisite exertion very severe; I was faint and giddy, made false steps, and missed my hold occasionally: every such slip brought out a bath of cool perspiration on my forehead, and seemed to jolt all the viscera of my system; but the prospect of food and lodging below urged me onward in my staggering scramble. At last I emerged from the wood upon an open slope of loose sliding drift, and saw below me a good road, and, to my amazement, the lake continuing to the right for many miles; for what I had supposed to be a valley of shingles, with the river in the middle, was the body of the lake. I am at a loss whether to attribute this illusion to the ripple of the lake reflecting

the north-eastern daylight, and thus appearing like pebbles, or to an uncertainty of vision resulting from long fasting and fatigue.

I saw the spire of the church far away to the right, near where the valley seems to close, about five miles distant. This was a terrible shock to my empty stomach; but gathering up the remnants of my strength, I slid on my heels down the loose slope, with a rattling accompaniment of the surrounding stones, came upon the road at last, and walked on till I reached the end of the lake, and the church.

There were some houses in the valley; at one of which I made inquiries, and learnt that the station is close by the church. Feeling quite assured that food and rest were at hand, I did not even ask for a bowl of milk at the house where I inquired; but upon reaching the church, with the station standing visibly near it, as described, I found a broad and rapid river between us, and the bridge a mile farther down, so that there were two miles more to walk, and the bridge to cross. This was the last straw upon the camel's back, and almost broke me down. Although I had been scrambling, and climbing, and struggling, rather than walking, for nearly twenty-four hours, and had taken neither food nor rest, I felt no sense of muscular fatigue, but a terrible giddiness, that made me reel and stagger along the road like a drunkard. When I reached the bridge, which was paved with planks having some spaces between them, the running water seemed to carry away with it all my remaining senses, and I fell

down; I remained for a short time, until some of the giddiness passed away, and then got up, and pushed on at a rapid pace to the station. It was a poor place, but inhabited by kind people, who seemed rather surprised and alarmed when I told them something about my journey. They brought bacon, fladbröd, and milk. I only proposed to eat very little, but I found myself unable to eat any solid whatever; so, after taking a draught of milk, I went to bed, and slept soundly for about four hours.

On awaking, I found a stout gentleman sitting at my bedside. He was the pastor of Lom. A Norwegian pastor is not merely a preacher; he is clergyman, physician, magistrate, arbitrator, and general friend and father, to whom all his scattered parishioners appeal. In a country where there are none but peasant farmers—no aristocracy, no gentry, no towns or villages, no shopkeepers, no professional class—a highly educated man must be strangely isolated, and, unless endowed with the true spirit of Christian benevolence, must be one of the most miserable of men; but, if suited to his work, he may be one of the happiest, for his opportunities of doing unmistakeable good, and of witnessing the full fruits of his good deeds, are almost unlimited. Most of these Norwegian pastors are, I believe, excellent men, and render great services to the people around.

In the present instance, the paternal relations of the good pastor of Lom were illustrated in my case, for he sat at my bedside, where he had evidently been watch-

ing for some time, as though he feared that some fever or other ailment might result from the over-exertion, excitement, and fasting; for the farmer had told him how far I had come, and how I staggered into the house, and sat down greedily to eat, but failed to swallow a mouthful. I was somewhat uneasy myself before going to sleep, not so much on account of the amount of fatigue undergone—for I had done many foolish things of the like kind before, under the intoxicating influence of the mountain air—but my alarm was suggested by the peculiar symptoms, the utter absence of any sensation of muscular fatigue, and the existence of an odd desire to keep on walking or half running. This, of course, was unnatural, and a symptom of nervous derangement; fatigue being the monitor appointed to warn us from destroying our bodies by excess of labour, and anything deranging that sense is a serious mischief.

I always have protested, and always will protest, most urgently, against the insane folly, so prevalent among all classes, educated and uneducated—medical men included—of using stimulants as a remedy for fatigue, as means of "refreshment" after labour, and as a whip to drive the brain or body on to further exertion. Whatever may be argued in favour of the use of such things at other times, there cannot be a doubt that this most common use is necessarily pernicious, for there is no other remedy for fatigue than rest. That feeling, reverently regarded—as it should be—is the voice of our Creator calling upon us to stop: to cease in a course of action that will damage the wondrous mechanism He has

entrusted to our care; for no man who has studied the structure of the human body, and has studied it with all his faculties, religious as well as intellectual, can fail to see and feel that it is not only a matter of policy and prudence, but also a solemn and holy duty, to guard this gift of his Creator from violence or pollution. What, then, can be more foolish and impious than wilfully to use a drug for the purpose of destroying that warning sense of fatigue, and urging oneself on to the direct violation of the solemn message of command that it conveys? There are no circumstances whatever, actual or conceivable, under which its use for such a purpose can be defended. We are sometimes forced to make an effort beyond the ordinary and desirable limits of our strength. If this be of short duration, an effort of the will is sufficient to carry us through it, unless the will has been made the perverted slave of drugs. If the required period of effort exceed the sustaining power of a healthy will, then it reaches the period at which a stimulant will be followed by reaction; and this reaction may in some cases be the bearer of death.

Let us suppose, for example, that the difficulty I have just narrated had been a serious one — that mists and snow had surrounded me, and another twelve hours' work had been necessary — a brandy flask, such as tourists commonly carry, if used in the usual way, would have justified the title of pocket-pistol by being an implement of suicide. I should have taken a sip at the commencement of the difficulty, and pushed on vigorously; then another sip a

few hours after, when the first reaction commenced; then another at a shorter interval, for the next reaction; and so on till the brandy would have been exhausted. I might have kept up in this manner somewhat beyond the time at which I staggered and fell on the bridge; but, instead of rising after ten minutes of repose, I should have sunk into utter prostration, from the reaction which necessarily follows such morbid excitement. Had the place been the wild mountain, with the snow upon the ground, I should probably have fallen into that sleep of death that comes over men under such circumstances. I have observed that in most cases where travellers have been found dead in the snow, an empty flask—a discharged pocket-pistol—has also been found by their side. On the other hand, without the pocket-pistol, I should have been forced to repose before the vital energies had become exhausted beyond the possibility of battling with the cold and hunger: I might have slept a few hours, even on the snow, without much serious mischief, and then have struggled on with effort and halting, even for twelve hours more; for the powers of endurance of the human body are immense, when exerted in harmony with their own natural laws.

There is a time, however, when brandy or such like stimulant may be of considerable service; that is, when the labour is over, and the nervous system is in such a state of irritable excitement as to render sleep difficult to obtain. With some temperaments, this is apt to be the case; then the brandy used for the opposite

purpose to that of stimulating to further exertion—viz., as a means of calling forth the only possible remedy for over-exertion, repose—may be of great value. If, therefore, the brandy-flask be carried at all, the only safe time to use it would be at the journey's end, when in some cases it might be useful; though, as a general rule, I believe that it is better not to use it even then, for the sleep obtained by its means is but a feverish slumber, followed by headache and depression on awakening.

The reader must not suppose that I am preaching a teetotal homily; for while convinced that the habitual use of any artificial stimulant, even of tea and coffee, when used so regularly as to engender a craving for it, is pernicious, I believe that the occasional moderate enjoyment of wine, simply as a matter of indulgence (sensual indulgence if you will, for we are sensual animals as well as moral and intellectual beings, and can gain nothing by denying it), is permissible, and, perhaps, beneficial; for the necessities of business and the general competition for self-advancement are apt to render us more cool and calculating than is healthful for the mind, and a moderate amount of convivial generosity may be an useful moral medicine; an alterative much to be desired.

Instead of suffering any illness or serious lassitude, I found upon awakening no worse symptoms than a ravenous appetite, the remedy for which was provided in the homely fare remaining on the rough plank by the bedside. After disposing of this, and thanking the good

pastor for his kindness, I started at about two o'clock to walk on up the valley of the Otta to Mork, where he told me I shall find comfortable quarters and "very good people." Mork is about twenty English miles distant from this, the Skeaker station.

CHAPTER XII.

A proud Norwegian beauty—Household charity a substitute for poor-rates in Norway—The good people at Mork—The family big box of the Norwegian farmer—The Lia Vand—Former extent of the Nord Fjords glacier—Saeter life—A damsel at bay—Collecting of the goats and cows—Cheese-making—The supremacy of woman and the inferiority of the male sex at the saeter—The head of the valley and the snow-fields—Difficulty in selecting the pass—Climbing powers of Norwegian horses—The Stiggevand and ice cascades of the Justedals Sneefond—Grand and desolate scenery—Head of the Justedal—Evils of dining.

The valley of the Otta is very grand and desolate, approaching in some parts to the grandeur of the Romsdal. Much of the road passes through dark wild woods of pine, with many fallen and shattered trunks lying about at the feet of the living trees, giving to the whole the primitive aspect of a new, unsettled country. Hitherto, the valleys I have passed through appear cultivated up to the limits of profitable fertility, but here there appears to be much neglected land left waste for want of population.

As I sat upon a boulder by the roadside, busily occupied in making the diary of my last day's wandering, some people approached and passed, whom I scarcely noticed; then one of them stopped in front

of me. On looking up, I was startled by a strange apparition. A tall, elegant, and most beautiful girl, about eighteen years of age, was standing before me; she held in one hand the end of a long stick, a young pine-tree stem stripped of its bark; the other end being held by an old blind man, curved almost to the ground. His abundant hair was perfectly white, long and straight, and wild; his eyelids and lashes were also very long and white, and his forehead high and deeply wrinkled. His dress was very coarse and poor; and his whole aspect was expressive of the deepest humility and dependence, combined with a certain amount of venerable gravity. She, on the contrary, was the personification of absolute pride—of innate, unassuming pride—a pride that is unconscious of its own existence, that makes no effort at dignity, and has no thoughts of dignity, but is instinctive dignity itself. I had excited her curiosity; and when I looked up, she was examining me. I was so much amazed, that I must have stared at her considerably; but that made no difference: she continued her calm scrutiny, utterly unmoved, as though I were a beast in a cage, or a mineralogical specimen. One don't mind the scrutiny of rude peasantry, especially when it is accompanied with wonder and admiration; but to be examined so very calmly—to be treated as a "specimen" by such a beautiful creature—stirred up the fragments of pride that exist somewhere in my own constitution; and it may be that I looked almost fiercely at her, but still made no impression of any kind. She was neither

confused nor indignant, but simply concluded her survey of the inferior being, then spoke a word to the old man, and walked calmly on. He tottered after her, clinging to the other end of the white stick, which was at least ten feet long. She was a perfect specimen of what we regard in England as the high Norman aristocratic type of beauty. Her face was a long oval, of geometrical perfection; her eyes were deep blue; her forehead was high and white; her nose, long and straight: every feature, in short, was unexceptional in form and symmetry. Her hair was flaxen, and her complexion clear, with very little colour. She was dressed with much care and neatness: a clean handkerchief smartly tied over her head, and a black cloth jacket closely fitting her beautiful figure. She was quite different from any of the people I had seen hereabouts; her face and hands were utterly clean. She was probably the daughter of some farmer, and the old man the family pauper.

In Norway there are no poor-rates, but the farmers have to support the aged poor as inmates of their houses. These old people generally do some light work, such as gathering wood and the like. The custom is primitive, and has many advantages. Charity thus becomes an active virtue, dwelling at the fireside of home — "it blesseth him that gives, and him that takes," for in kindly treating such a pensioner, a happy influence is spread throughout the house, and the little children are trained in the exercise of gentle benevolence, by a course of instruction that no maxims

or sermons can substitute; for moral training must be a training in deed and feeling: mere ethics only inform the intellect.

On arriving at Mork I found that the pastor's encomium on the "good people" was well merited: the hostess was overflowing with goodness. The arrival of a guest threw her into a state of excitement quite unusual among Norwegians; she brought out a vast array of pans, containing cream, soft cheese, milk and porridge, piles of fladbröd and crisp flour cake; a ham, that seemed to have been smoked for years, was unhooked from the rafters, eggs were set a frying, and the coffee-berries turned out and roasted forthwith.

She was one of those really kind women who love to see people eat, who sincerely believe in the helplessness of man, and that he must necessarily perish unless a woman is near to minister to his comforts; and she was full of sympathy for a solitary wanderer whose mother was so far away. She made many inquiries, all of which I answered as fully as my Norsk allowed; then she showed me the big box containing her Sunday clothes and wedding dress, and a great stock of domestic apparatus. Her name, "Thora Olsdatter," and her husband's, or father's, "Live Olsen," was written upon it in gay letters, and the inscription bordered with brightly painted flowers. All the panels of the room doors were also painted with vases bearing bright flowers, in which the primary colours decidedly prevailed.

The big box, emblazoned with the family name, is a

common and prominent object of Norwegian farmhouse furniture. It is usually eight or ten feet long, about three feet wide, and two feet high, and the treasures it contains are most miscellaneous. Suspended from the lid are caps and ribbons, a large watch, and other trinkets; at the bottom is a store of neatly folded bed-clothes, and towels, table-cloths, &c. There are side shelves and fittings for shoes and men's clothes, coffee-berries and pepper, and the very few other exotic luxuries used in a Norwegian household.

I am now becoming reconciled to sheepskin cover-lids: when they are perfectly clean, as the one I have here, they are most luxurious; the soft wool in its natural state of curliness and elasticity touching the skin more tenderly than any woven fabric.

I had much difficulty in pressing upon the good Thora Olsdatter any payment. She considered the steel pens and paper of needles I had given her to be an equivalent for the board and lodging, and when I explained that they had nothing at all to do with it, she refused to take more than one mark and a half.

My next day's walk was an ascent to the Sota and Mysybytta saeters. The track passes up a wild valley, where the walking over loose stones with water between reduces one's best pace to about two miles per hour. The Lia Vand is a fine specimen of a wild mountain lake. Beyond this lake the track passes over an ancient glacier moraine of great extent and unmistakeable character. The river struggles among its boulders, and at other parts slides smoothly over the grooved and

polished rocks of the ancient glacier bed. It is quite evident that the great Nord Fiords glacier once extended as far as this part of the valley, filling it with one of its descending branches. This has gradually receded to its present position at the head of the valley, leaving at every stage of its retreat a ruin of rocks from its deposited moraines.

I arrived at the Mysybytta saeters at about six o'clock. The Norwegian saeter corresponds to the Swiss chalet; it is a little wooden hut, built upon the mountain pasturages, that are only open from the snow during a few weeks of the summer. At this period, the cows and goats are driven up, and left to roam upon the pastures during the day; at evening-time they are collected by an offering of salt, then milked, and the cheeses made. They make *cheese* while the sun shines here. Every tourist who visits Norway, and would study the Norwegians, should have some experience of saeter life. I gladly availed myself of this opportunity of spending a night in the saeter attached to the farm of my good hostess of Mork. There were several of these wooden huts dotted about a dreary moorland, from around which high peaks of glacier-bearing mountains rise. I found some men asleep in one of the huts; and upon awakening them, they offered to provide me with food and lodging. As there appeared to be many saeters, and these attached to different farms, I inquired whether the one they proposed for my lodging belonged to Mork; whereupon, the men looked curiously at each other, and one of them, with a sig-

nificant grin, quite unintelligible to me, asked whether I particularly wished to lodge in the Mork saeter. I replied, "Yes," very decidedly; for these fellows were a dirty-looking set, and I was certain that even a saeter, if it belonged to Thora Olsdatter, would be clean. This answer provoked a general laugh, and they escorted me in procession to a hut at some distance from the rest, knocked at the door and called to the inmate, who, for some time, made no answer; but at last a blooming lass—a ruddy, muscular, rural beauty—opened the door, and looked forth with a frown of stern maidenly defiance. After a volley of banter, which she received very contemptuously, I was introduced as a traveller who had come all the way from England to visit her saeter and lodge there for the night. I was received very haughtily at first, until I frowned severely at the scoffer, and told her of my coming from Mork as the guest of Thora Ols, who had sent me hither. She then bade me welcome, and immediately I entered, shut the door unceremoniously upon the grinning swains outside, who were seeking an excuse to come in likewise. She supplied me with supper of cheese and fladbröd, and showed me the bed from which she had just risen, which was to be mine; explaining that she had slept during the day, and that her work was about to commence, and would last through the night: she then disappeared.

In the course of an hour, I heard a wild "yodl," very loud, but not very melodious. The damsel was returning with a flock of about thirty goats and some

six or eight cows. She took a little bag of salt from the hut, and, before she had fairly cleared the threshold, was the axis of a pyramid of goats, who were crowding round her and leaping over each other's backs, for the privilege of licking her hand after each dip into the salt-bag. She repelled the goats as energetically as she had repelled the men, but more mercifully; for she thrust the ends of her fingers into the mouth of each before giving it the buffet of dismissal. The tact she displayed in preventing any of the obtrusive animals from obtaining more than one lick of salt, was remarkable; a second application was met by a grasp of the horns, and a thrust that drove the upreared aspirant staggering backwards a yard or two: she must have distinctly known the features of each individual goat to pick them out so certainly. The cows were next treated in like manner, then seized by the horns and ears, as the goats were seized before, and each one dragged to its proper stall in an adjoining building, not distinguishable exteriorly from that designed for the bipeds.

This milking was a work of some time, for the brave damsel was quite unaided in this scuffle with her flock, and in all the subsequent operations of milking and cheese-making. She was queen and mistress of her own domain and family, and her efforts seemed pretty equally divided between the cares of internal administration and the repelling of the external male invaders; whose gallantry seemed entirely confined to teasing her, and led to no suggestion of aid in her really arduous

labours. The men seemed, in fact, to be merely a set of idle, useless, inferior beings; earnestness and energy being exclusively female attributes at this altitude. It may be, that the men were idle because it was Sunday, or that they had come up to the saeter-land on a visit to their fair inferior; it is, however, notorious, and acknowledged throughout Norway, that in the saeter, woman reigns supreme, and men can only exist there as tolerated intruders: indeed, the social position of the male in a Norwegian saeter is somewhat similar to that which he holds in humble English life on washing-day.

While the milking was in progress, I laid me down upon the bed: with my clothes on, of course, as the cheese-making had to be done by my blooming hostess in the same apartment. It was a wooden room, about five yards long by four yards wide: the walls lined with shelves, on which were cheeses already made, and the materials for making more. The bed was of the usual rustic Norwegian construction—an oblong box made fast to the wall, and partly filled with straw, over which were some coarse sheets, shawls, and a sheepskin: this one was about wide enough for a comfortable coffin. In the corner opposite to the head of the bed, and almost within arm's reach, was the great stone hearth, covered with a stone and plaster dome. The other corners were occupied by benches on which the vessels for standing and mixing the milk with the other cheese materials were placed. There was also a second small apartment, or rather cupboard,

for the stowage of pans, pails, &c. All was scrupulously clean in this particular saeter.

Soon after sunset the sovereign mistress of the place came in, bearing heavy pails of rich milk from cows and goats. Some lumps of wood were taken from their store place under the bed, a crackling fire was soon blazing on the hearth, and the iron cauldron, filled with a mysterious mixture of goats' milk and other unknown ingredients, from which the green cheese that ripens in time to "gammel ost" is made, was hooked to the black chain over the middle of the fire. For some hours after, every time I awoke the sticks were blazing, and the busy lass was there stirring, mixing, and watching till after midnight, or nearly to the dawn, when she disappeared.

At five o'clock, when I started on my next day's walk, she was at work again, making more cheese from the morning's milking.

The ascent of the valley towards the snowy wilderness of the Nord Fiord and Justedals Bræen is by an abominable path over the wreck of glacier moraines, and through thickets of low beech trees, or rather bushes; the elastic arms of which, entangled with each other, continually bar the way, and, springing back as they are bent aside, pick off one's hat, flog one's face, and, take most tantalizing liberties with the knapsack behind.

This vegetation soon ceased, and I came upon a waste of loose stones with soppy snow between, and every vestige of the track obliterated by the thawing. It happened to be just the sort of place where a beaten

track is specially needed. Over a rolling moor, or up a definite valley, one may steer by compass; but here I arrived at the head of a valley terminating in three peaks, the centre one being just in the direction which, according to the map, I ought to take: only a mountain pass is never over a peak, but always by the lowest practicable way in the hollow between two peaks. Which, then, must I take; the hollow to the right or that to the left? The configuration of the hills not being given accurately on my map, I had therefore to go by guess. It was evident that these courses led to very different places; to valleys branching off in very different directions. They all led upwards to the great snow deserts of the Justedal and Nord Fiord, or to the dreary Sogne Fjeld, and downwards again to rocky solitudes filled with the ruins that the recently receded glaciers have left behind. My destination was the Justedal, the only one of these valleys that is inhabited; but the upper end of this is as desolate as the rest, the first farmhouse being so far down that I could only expect to reach it at the end of my day's walk. It was quite possible, therefore, that I might take the wrong valley, and only detect my error after some hours' walk; thus having to spend another night in a region still wilder than that where I had strayed aside before.

I ascended one of the peaks in hopes of making a survey that would aid me, but found that the apparent summit is surmounted by another far above and away, and that probably by another, and perhaps another still; as is so often found to be the case in making such

ascents. I saw little more than peaks of rock and plains of snow, and a portion of the "*fond*," or mother-land of glaciers; the vast table-land of snow and ice, from which the numerous glaciers of this region descend, being visible from this point. I descended again and made for the pass that seemed the most likely to be the correct one, and in ascending towards it found upon the snow the footmarks of a horse and two men; these being evidently recent, I determined to follow them, as the Justedal is almost the only destination for anybody. I could not have believed it possible for a horse to travel over such ground had I not seen the footprints, and I suspect that none but a Norwegian horse could do it. It is a steep mountain side, covered with angular boulders varying in size from a man's head to a church, heaped together to an unknown depth, with crooked crevasses between, some filled with snow and others gaping open. Part of the climbing is to be done by stepping on the angles of the smaller blocks, or along the edges of the larger where they are wedged in with an edge upwards, and partly over the sloping snow-covered surfaces of the largest masses. Snow climbing is always very laborious, but this sort of compound of snow, and rock, and treacherous snow-covered holes, is particularly so.

On reaching the summit a singular scene presented itself. At the foot of a vast amphitheatre of snowy mountain peaks is a gloomy basin of rock filled with the waters of a half-frozen lake. The water comes directly from the snow above, and is of a peculiar blue-

white, semi-opaque, London-milk colour, common to such snow-water. This lake is called the Stiggevand, which, I believe, may be translated the Stygian pool; and a better name could scarcely be invented, for its gloomy and desolate aspect would satisfy the imagination of the most dyspeptic and bilious of poets.

The hollows, or basins, which occupy a higher level than the lake, are filled with snow, and with ice formed by the melting and re-freezing of the snow: thus filled up, they form great plains, having a surface of virgin snow without a footmark, or a scratch, or spot visible. These apparent plains are, however, not quite level, but slope towards the rocky precipice rising above the lake. The icy sea, pressed forward by the mass above, flows over these walls in great bending sheets, that reach a short way down and then break off and drop in masses into the lake, their broken edges forming a blue cornice fringed with icicles. If these walls of the lake-shore had sufficient slope to hold the icy cascade without breaking, glaciers would be formed; or if the supply of breaking masses were sufficiently great to overpower the thawing below, the basin of the lake would be filled up and become continuous with the great ice and snow fields above, and might extend onwards to the spot where I was standing, or even overflow this and push down the valley up which I had come to the saeters below. That this was formerly the case is shown by abundant evidences on every step of this day's walk, and the latter part of yesterday's.

The soft though sharp outline of the virgin snow

standing against the blue sky just where it pours over the precipice, is very beautiful. There are no birds up here, no roaring torrent, no rustling of trees, or buzzing of insects; not even the ripple of a thin stream, as heard on the Swiss glaciers; but a silence that is almost absolute, and adds vastly to the effect of such a scene, especially on the mind of the solitary pedestrian. A guide is a positive nuisance under such circumstances: the tourist is so dependent upon him that the chief excitement of the walk is gone when there is no effort required to find one's way and no possibility of losing it; then he interferes with the enjoyment of the scene by hurrying one on with the sole motive of getting over the ground. Even a congenial friend, however desirable in general travelling, interferes with the feelings and reflections which such overwhelming solitude and silence awaken.

The snow plains which are here seen bending over in cascades above the lake, are terminations of the great table-land of snow forming the "*fond*" or "*sneefond*" of the Justedal's Bræen; a great untrodden desert of perpetual snow, extending for about fifty miles to the S.W. with a varying width, and covering altogether a space of about 400 square miles: it is one vast field of ice and snow. Every valley of favourable configuration that branches from this great reservoir of ice is filled with a glacier, or ice-torrent, replacing the water-torrent of the valleys that descend from the Dovre and other fjelds that are not snow-covered.

I now descended over similar ground to that on the

opposite side of the pass. The track on this side was well marked by occasional heaps of stones. I always regard it as a matter of imperative duty to contribute to such heaps, by adding a stone to every one I pass: they are almost necessary on this side, for in ascending it would be very easy to miss the particular notch through which I had passed, and by taking the wrong one, to wander aside to the Stiggevand, or to other blind valleys leading to the upper desolation of ice and snow. A walk under one of the overhanging cornices of ice must be very dangerous, as masses are continually detaching from them.

I walked on over a wide fjeld of glacier moraine leading at last to the outlet of the Stiggevand; a torrent of respectable dimensions which, fed by a succession of glaciers, grows to a river* as it flows down the Justedal. At the point where the stony fjeld narrows and descends to form the head of this valley, the torrent makes a succession of falls over walls of piled-up boulders.

From this point a considerable length of the valley is visible, and a few miles farther down I saw three men and a horse reposing by the river-side; I found on approaching that the men had been taking their dinner and siesta. I followed their example, to the extent of eating some fragments of fladbröd I had brought in my pocket, but could not indulge in the luxury of a sleep on account of the gnats and flies that swarmed about my head, biting and stinging unmercifully; for within an hour or so after leaving the Stiggevand and its over-

* The "Storelv," or large river.

hanging snows I was subject to these tropical annoyances, and a burning sun to match them. The peasants and the horse were proof against these annoyances, by virtue of tougher skins, with an outer stratum of hair on the one, and of dirt on the other.

I found that they started from the saeters about two hours earlier than I did, and that it was their footsteps I saw in the snow. I walked on with them for about an hour; they complained sorely of fatigue, and at last gave up on reaching an empty saeter hut. They were surprised at my freshness, especially when I told them how far I wandered from the track by ascending to the wrong ridge, which added some two hours of hard climbing over and above their day's work. I was rather surprised at it myself; for I had done some very heavy work during the last few days, without any feeling of fatigue worth notice. This, I suspect, is attributable to two causes: first, to having prudently commenced with easy stages; and, secondly, to the total absence of hotels and anything approaching to a dinner.

I have continually found that in countries where there are hotels and good dinners, it is very difficult to do a fair day's walk. If any attempt at dinner is made early in the afternoon, the case is quite hopeless; and even when dinner is taken late in the evening, at the end of the day's walk, the fierce appetite thus engendered, if at all pandered to by tempting dishes, is almost certain to give the stomach so much to digest, that a large amount of vital energy is consumed in the process, and much unnecessary weight added to the body. This, of course,

may be to a great extent constitutional; a lean, spare man would probably walk better on good dinners, but one with decided tendencies to over-assimilation, and naturally addicted to fattening, should feed on dry fladbröd, bruised oats, or stale crusts and water, if he wishes to be in the best possible physical condition. The exercise will render these sufficiently palatable and digestible to enable him to eat and assimilate sufficiently.

CHAPTER XIII.

The Trangedal and Lodal Glaciers—Outline of the natural history of avalanches and glaciers—Advance and recession of the Justedal Glaciers—The "Bear's Path" Glacier—Fermented milk—A human candlestick—An interior—Scandinavian fleas—Scenery of the Justedal—More starvation—The Nygaard and Krondal Glaciers—Luxurious quarters and Englishmen—How to enjoy dissipation—Centre ornament for a dinner-table—An evening concert in Norway—The trail of the travelling snob—Drunkenness and extortion—A mutinous boat's crew—A walk in the dark—Startling the natives with portable lightning—Domestic revelations.

NEAR to the saeter where my tired companions stopped are two magnificent glaciers, descending from the "fond" above the valley, down lateral openings into the valley below. They are very near together, and would join at the lower part if they extended a little farther. The upper one comes down a straight valley, and can be seen in its whole course from the "fond;" it spreads out at its lower part, and displays magnificent blue crevasses: this is the Trangedal glacier.

The next below it is the glacier of Lodal, the largest known glacier in Norway. I say *known* glacier; for there are many of those that flow from the great snow-land of the Fondalen, just within the Arctic Circle, and are visible from the steamer on the northward journey

(*see* pp. 85, 86), which have never been explored or even reached.

This glacier of Lodal presents at its lower part decided evidences of being of great extent, though from the valley only two or three miles of its length are visible. It contrasts strikingly with its neighbour of Trangedal, which is clean and white in the parts between the blue bands and crevasses: it looks, at its termination, like a heap of dirt, with mere streaks of snow between. Higher up are two long black streams of medial moraine, besides the usual lateral or shore moraines at each side. This term "moraine," though I have used it so frequently, may still have to some of my readers a rather indefinite meaning, and therefore a short explanation may be acceptable.

It must be remembered, in the first place, that, as we ascend a mountain, the temperature decreases until we reach a height where the snow that falls during the winter does not thaw in summer. This is called the snow-line. The height of this line varies with the latitude, aspect, proximity to the sea, length of summer, &c. Let us first of all imagine a high mountain range, forming a single, long, smooth, sloping, rounded back, or an angular ridge like a house-roof, and perfectly unbroken at its sides. The snow, in this case, would begin thawing in the spring at the lower part, and a nearly even line would be formed by its lower boundary. This line would rise during the advance of summer until it reached the true snow-line, which would still be nearly straight. At this line, then, the heat of the

year would be just capable of melting the snows of the year; below it the heat would overpower the snow, and above it the snow would prevail. Therefore, above this line there must be continual accumulation of snow; for as the whole year's heat would be less than sufficient to melt the whole year's snow-fall, there must be an annual increase of snow. What would become of this, under these circumstances? It is obvious that it would increase in depth; and the greater the height the greater the rate of this increase: thus it would top up, till it exceeded the angle of repose, and then slip down in avalanches.

There would be two kinds of avalanches. In the winter, when much snow had recently fallen,—and this snow, from the absence of the sun to overpower the continuous cold of both night and day, remained a dry, incoherent powder,—it would accumulate till it slipped down in great sweeping strata of dust, and thus form the "dust avalanche" (the "staublauinen"): too well known as a winter visitor to some of the Swiss valleys. In the summer time, even above the snow-line, the sun's rays would be powerful enough to thaw the surface of the snow; and the water sinking into the snow would partly freeze again below the surface, while that upon the surface would freeze during the night: thus a half-frozen, coherent mass of snow would form, and when this gave way would slide down in lumps, like the well-known summer avalanche of the Alps.

Now let us suppose this roof-shaped mountain to be furrowed down its sides by the wear of descending

waters, so as to present the form of a ridge-and-furrow roof, something like the transept of the Crystal Palace. The snow would, of course, accumulate in the furrows; and would be so deep that the melting power of the summer heat would not clear it away to the same height as before; while on the ridges the snow would lie so thinly, that it would be melted speedily, and the visible snow-line there would be much above the original height. Hence the apparent snow-line would lose its regularity, and be a waving or zigzag line. If these furrows were irregular, such as would be actually formed by the running waters and sliding avalanches wearing away the rock in some parts more than others, this waving or zigzag line would have a corresponding irregularity. The path of the avalanches would now be down these furrows, and as the rock forming the sides of the furrows or troughs became weather-worn, disintegrated by frost, or otherwise rendered friable, its loosened fragments would be torn and dragged down, with the sliding avalanches, and deposited in heaps at the bottom, like those in the Romsdal (page 186).

Now let our supposititious great mountain-ridge assume a more complex form: let there be huge pyramids and peaks of rock sprouting irregularly from its sloping side, and toothing the edge of its summit ridge. There would be a labyrinth of hollows between these peaks, valleys, and basins of the upper ground above the snow-line. In these the snow would rest and accumulate till they were filled to overflowing; it would fill up the communicating avenues between

these basins, and connect them, as a great snow table-land out of which the rock peaks would arise. Such is Mont Blanc. It appears like a rounded camel-back mountain; but I have no doubt that its actual structure is a bunch of ragged granite peaks, like the "Aiguilles" near to it: and the spaces between these acute pyramids, from their bases up to the verge of their summits, and even above the summits of some of the less elevated, are filled with consolidated snow, reaching in some parts to thousands of feet in depth. The summit, the Mont Blanc de Tacul, the Rochers Rouge, the Grands and Petits Mulets, &c., which stand like rocky islands amidst the vast plains and slopes of snow, are but the summits of these tall, acute pyramids, thus buried neck deep. The "snee fonds" of Norway, such as the Fondalen, the Folgefond, Justedal, &c., differ from this only in being great table-lands, or rolling fjelds, edged with peaks.

Whether there be such a table-land or an entanglement of rock basins and troughs above the snow-line, it is evident that this growing accumulation of snow will ultimately overtop the barriers, and must by some means overflow. But how will this overflow be effected? Will it all slide down as avalanches, or may not the barriers formed by the rising peaks above and below the snow-line interfere with this simple mode of outlet?

The Norwegian table-land of snow, or "sneefond," notched at its edge with rising peaks of rock, presents the simplest form, and the phenomena there presented may be the most easily understood. It must be remembered

that such fjelds are not altogether level; they are more or less backed or elevated towards their centre, so that there is a varying slope towards the great notches between their boundary peaks. These notches must necessarily be the outlets of the accumulating snow. Overhanging the Stiggevand, just described, is one of the notches, which communicates by an almost perpendicular wall with the lake below. The ice of the sneefond there bends over in the manner described, and when the overhanging mass exceeds in weight the coherent power of the ice, huge fragments are detached, which fall into the lake below the snow-line, where they thaw and commence a river.

Here in the valley of the Justedal are several of such notches. This valley is, in fact, formed on one side by the slopes of a row of the fringing or boundary peaks of the Justedal Sneefond. The notches between these peaks do not, however, terminate in steep walls like those over the Stiggevand, but in sloping valleys which are tributary to the larger valley of Justedal. If the fjeld above were not snow-covered, simple tributary streams of water would flow down these into the river of the main valley; but as it is, great streams of ice flow, or are thrust, down far below the snow-line, where they thaw, and thus contribute to the stream. These ice torrents are the true glaciers: the formation of the Swiss and other glaciers is similar.

Some notion of the amount of thawing that thus takes place, may be formed from the experiments of M. Bohr, who compared the discharge of the Störelv in

the morning and evening of a hot summer's day, and found that in the evening there passed by the church of Justedal 1,860 cubic feet, or 116,250 lbs., of water per second more than passed in the morning.

Glaciers frequently descend in this manner so far below the snow-line as to reach the boundaries of the corn-fields; and of course the lower they come the more rapid must be the thawing. To compensate for this thawing below there must be a continuous supply of ice from above: the glacier must, in fact, be perpetually advancing. Careful observation has proved that such is the case: these great ice slopes move gradually downwards, with a velocity varying with the slope of the ground, the heat of the weather, &c.; the middle moving faster than the sides, as in the case of a river.

The Mer de Glace moves at an average rate of about sixteen inches daily. This glacier with its tributaries is about twenty miles long, and a block of stone would be about 200 years travelling from the top of the glacier to the end. Such a block now discharged at the bottom would therefore have started at about the time of Cromwell's death, and have been travelling ever since. Such blocks are continually falling on the glaciers from the precipitous walls of the sides of the valley through which they flow; and at the foot of such precipices, where there is no glacier, there is usually a talus or heap of stones, the accumulation of ages. When a stone falls upon the glacier, it moves on; the next takes its place behind this one, and thus a line, instead of a talus or heap, is formed. According to the nature of

the valley through which the glacier passes, the amount of precipitous wall, the friability of the rock, &c. &c., will the number of such stones be greater or less. These, as they are marshalled on each side or shore of the glacier, form the "lateral moraines." It often happens that two confluent valleys are filled with glaciers, and these meet like the meeting of waters, and swell into a larger stream; the lateral moraines of the inner sides each unite, and thus a medial moraine is formed. Finally, these moraines, travelling always onwards, reach, stone by stone, to the bottom of the glacier, and there they are deposited; forming the terminal moraine, which sometimes amounts to a huge accumulation.

I am sorely tempted to continue this subject: to explain how great masses of rock float upon this icy sea, and are upreared on crystal pedestals; how an errant butterfly, chilled to death by the cold glacier blast, falls upon the ice, and by the necessary laws of heat scoops for itself a little grave, a water cup of oval shape, its longer axis lying due north and south, and deepest at the north, so accurately that the traveller without a compass might safely find his bearings by placing a stick in such a cup, and it would fall in a sloping line indicating the meridian of the place; how this little cup deepens and grows to a large basin, and how that basin shallows afterwards, is next obliterated, and a symmetrical cone with an oval base rises exactly in its place—a temporary monument of ice, marking the grave of the dead butterfly. But an explanation of these curious phenomena

would carry me over too much space; as would also a discussion of the theories that have been propounded of the causes of glacier motion.

The Lodal Glacier exhibits the phenomena of medial moraines very distinctly and beautifully. It has travelled a long way, and bears evidence of tributary streams and much wearing away of mountains. It spreads out at its lower part, affording, by its shape, strong confirmation of the theory of Professor James Forbes, according to which the ice of glaciers is a viscous or partially fluid mass, that yields resistingly to gravitation and its resulting pressure, and flows as water does, only very slowly. The dirty aspect of the lower part of this glacier is due to the outspreading of the two medial moraines, until they meet each other and finally join the lateral moraine. This, I suspect, is due to the rapid thawing of the lower part of the glacier during the long summer days. The ice upon which the moraine rests being protected by this rocky covering, the moraine is apparently raised, and stands on a ridge, which, becoming higher and higher and more steep-sided, the blocks at last slide down its slope, and are spread out on each side of their former position. This action, continually repeated, would in time distribute them over the whole surface of the glacier and obliterate the regular moraine bands that are visible higher up.

I walked on down the valley, the wild grandeur of which is most magnificent. At the foot of the glaciers is a long waste shore of smooth rock, which terminates

in a wild heap of boulder rocks, indicating the former extent of these glaciers. One might imagine these glaciers to be great waves from the sea of ice above, that have rolled and broken on this shore, and heaped up the shingle beach beyond, and are now retreating over this smooth strand, and gathering up to curl over and break again, and then rush up as far as their former boundary.

Glaciers do thus advance and retreat; only not quite in the shape of breaking waves, nor so rapidly. For about a hundred years the glaciers of the Justedal have been retreating: this of Lodal is some 600 or 700 yards from its former moraine. In 1740, the damage to farm property in this valley by the encroachment of glaciers became a subject of judicial inquiry. Their retreat has been subsequent to this.

A few miles farther down the valley there is another fine glacier without any medial moraine, and scarcely any at the sides. The blue crevasses and great ribs of ice are very fine in this. It is called the "Biörnestegs Brae," or Bear's Path Glacier, and nearly opposite to it are some more saeters.

Two or three miles farther down is the farm of Mjelvor, which I had fixed upon as my destination. A peasant I met on the way proved to be the proprietor of this house and of all the country round. The farmhouse is a gloomy, dirty place, but the host did his best to accommodate me; there were some women about, but there appeared to be no mistress, for he himself served me with some sour milk or whey that was three or four

weeks old—the cows being all at the saeters above—and some very dry raw ham and fladbröd. This very stale milk, which I have heard of on the way as one of the Norwegian beverages, but have not tasted before, is rather remarkable: it has a tart saline taste, more like some kinds of ale than anything of milk. I suspect that it is fermented and slightly intoxicating; that by means of the acid and casein, the sugar of milk has been converted into grape sugar, and has then fermented: it is evidently used as a substitute for beer. On account of its excessive tartness, amounting to acrid pungency, I was unable to take sufficient to test its stimulating properties. My bed was made specially for me of a couple of planks across a bench, a bag of straw upon these, a sheepskin over all, and a broken window above my head for ventilation.

The family, which consisted of the master and six or seven housemen and women, supped altogether on cement, spooned, as before described, out of a common bowl. The bowl stood on a rude table or block, and they stood around it, dipping by turns scrupulously spoon and spoon about. It was dark, and the large timbered room was lighted only by a blazing band of resinous pine-bark, twisted together into a long stick or scroll, which was held at arm's length overhead by an aged man with long white beard and silver hair, who stood so still and looked so withered that he seemed like a frozen mummy, fitted with gray glass eyes and glued to the ground as a permanent candlestick. He was

the family pauper, standing in humble servitude, and waiting his turn when the general meal was done.

The red glare of the reeking brand lighted the faces of the "cementivora" with a copper tinge; who, as they stood around the bowl, reaching by turns at arm's length and returning their spoons with the long sweeping curve before alluded to, seemed like demons doing an incantation. The red light spread dimly throughout the whole of the wooden room; tinging with lurid and fitful glare the rude logs that made the walls, the brown-smoked heavy beams above, and all the dingy domestic stores suspended from them, and making the great fire-place built into the corner, and the two wooden-box bedsteads and the dilapidated handloom dimly visible. The whole scene would have made a fine subject for such an artist as Gherardo della Notte.

Scandinavian fleas are very energetic, and on this occasion were abundant also. The bag of straw was very ancient, and many generations of fleas must have lived in peace within it and passed away, since the straw was last changed or the bag washed.

The next morning I started early, on account of my bedfellows; taking only a few mouthfuls of fladbröd, and resolving to make amends at the first comfortable-looking farm I should pass on my way down the valley. This valley winds about amidst the wildest desolation of black frowning crags and glacier ruins imaginable; it is quite equal in grandeur to the Romsdal, and more desolate. There are no waterfalls of any magnitude; but the icefalls—the glaciers—well supply their

place. I should recommend all tourists coming to Norway to visit the Justedal if possible; and, if at this season, to bring some food with them. Being an inhabited valley, I was reckless in this respect; started early, and hungry, walked on some miles before I reached a house, and passed that disdainfully in hope of finding a better one; but in this was disappointed. Finally, on becoming more moderate in my expectations, I knocked at the next and tried the door, but found it bolted; all the people were away up at the saeters or the distant "eng," or upper hay ground, on which at this season the harvest is gathered. I tried other houses with the same result all the day through, and was thus compelled to make breakfast and dinner on raw (stolen) turnips and wild bilberries, which last grow in great abundance and are remarkably fine.

There are two other glaciers at this part of the valley. The Nygaard glacier comes down a winding valley, and spreads out finely below. Like that of Lodal, its former shore of heaped-up moraine is most distinctly marked; the strand between this and its present limits is a desolate plain of rock, smoothed and grooved by the former glacier, and the stones imbedded in it. Below this is the Krondal or Berset glacier. There is a wonderfully fine amphitheatre of rocks at the lower part of the valley.

I reached the mouth of the valley shortly after sunset, and was surprised at finding a downright hotel there—something absolutely luxurious—a place where cookery is understood, and real bread may even be obtained,

and wine in abundance. Such being the case, I, of course, met some Englishmen there: had it been a region of nothing to eat, but plenty of copper ore, I should have found a Scotchman or two. For my own part, I was in a very decidedly English state of mind, after starving more or less for the previous ten days. Having already relieved my conscience by confessing to the fact that I did steal some turnips, I may explain that they were only two, and those very small; my principal food during the day being bilberries—very delicious, but by no means solid and satisfactory. They call them *blau*, or blueberries, here; their rich colour justifies the name, and suggests the etymology of the Scotch name "*blaeberry*."

I had a sumptuous banquet of ham and eggs, with bread and a bottle of claret (St. Jullien, of very good quality); the charge for which was about seventeen-pence English. The duty on wine is twopence per bottle.

The man who never had a holiday, and has none to anticipate; who has no shop, no factory, no office, no farm, no studio—in short, no daily work to do; but has been cast upon the world by cruel parents with the stultifying curse of a large inheritance and no fixed ambition—the purposeless idler, to whom all the days of life are of equal dreariness—is perhaps the most miserable of all human beings. What would he give to be capable of the sensations of a hard-worked London apprentice on Easter Monday, or a shopman on Good Friday! He never knew, nor ever can know, what

Sunday means. I do not, of course, allude to the dreary Sabbath of the modern puritan, but the bright, happy, soul-refreshing Christian holiday. Those who talk so much about the fourth commandment frequently forget its first and fundamental injunction, "Six days shalt thou labour;" for without the six days' labour, there can be no seventh day of rest. Daily labour is as necessary to man's happiness as daily food is to his physical health. I have never met a single example of an idle man who was not a miserable man; and one of the greatest of all our popular delusions is that of considering a forced vocation an evil. The man who spends his life merely in seeking enjoyment, soon finds that enjoyment is an irksome labour—a labour without holiday or any refreshing rest. So with the man who has claret every day with dinner; he can form no idea whatever of the enjoyment I had of that particular bottle of St. Jullien, and the ham and eggs at the Ronnei station, after the invigorating hardships of the previous week or two. It was a mighty feast—a furious dissipation—which I shall remember for a whole lifetime.

I determined to stop here a whole day, for rest, luxury, and letter-writing. There is something like a village here; there are gardens and fruit-trees; and my dessert after last night's ham and eggs was a branch of a cherry-tree served with the leaves and fruit upon it. I resolved that if ever I have a garden and a wife, and give a dinner-party in the summer, the dessert shall be served in this fashion—well-laden branches of fruit-trees arranged as a centre

ornament for the table, in place of an electro-plated epergne; the fabric to be pulled down after dinner, and the branches handed round among the guests to pluck what they desire. If I may draw any conclusion from the condition of the cherry-trees hereabouts, they suffer no injury from this mode of gathering the fruit, which seems to be customary; for I have never seen cherry-trees so abundantly laden with fruit as those in the garden belonging to this inn: most fruit-trees require lopping and pruning, and this appears a very natural and desirable way of doing it.

In the evening there was much company at the hotel, and some music; the instrument, one of the ornaments of the chief drawing-room, being a jingle-jangle organ, such as the Italian boys carry about our streets: the handle was turned by the host, and the company assembled to hear it were delighted with the concert. The Englishmen who eclipsed me by taking a deck-passage on the *Constitutione*, arrived here; but I had the advantage of them, for they were too late for the concert, while I had the privilege of hearing it all through. This is a favourite station with yachting parties, of which there are several every year from England.

The river of the Justedal, the Störelv, brings down an immense quantity of glacier-worn *débris*, which, being deposited at its mouth, has made a fertile nook hereabouts: the deposition is going on rapidly. I found, when bathing, an extensive subaqueous plain, stretching right across this branch of the fiord; and in the course

of a century or so, it will probably be high and dry, and cultivated right across to Marifjoeren on the opposite side.

My next day's walk was over rich cultivated country between Marifjoeren and Hafslo. There is a beautiful lake by Hafslo, and a remarkable steep zigzag road near Naglören.

On arriving at Sogndalsfjoeren, I found a considerable portion of the boating population either drunk or in a state of recovery from drunkenness (which, of the two, is rather the most disagreeable), and I spent two or three hours vainly endeavouring to engage a boat to take me down the fiord: for there are no roads, or even tracks, or scarcely possibilities of travelling on foot, hereabouts, where the rocks dip almost perpendicularly into the waters of the fiords.

The people here seem very different from any Norwegians I have met before: they have larger features, lower heads, and, many of them, dark hair and eyes, and almost a Neapolitan physiognomy. The boatmen are very uncivil, and, for the first time in Norway, I found them bent upon making an overcharge: evidently calculating upon my being an Englishman and submitting to it. This, and the drunkenness, are partly explained by the fact that an English yacht had been there just before: English lavishness had left its usual demoralizing trail behind. After a great deal of trouble and altercation, I got a boat and two men, one of them partially sober, the other entirely drunk. In order to obtain these, I was obliged to offer 1 mark

per man per mile, instead of 20 skillings, the regular fare, and this was considerably below their demand: indeed, they seemed quite unwilling to work at all.

The drunken man commenced by pulling furiously, then missed the water, catching crabs, and fell over the seat. Then a head wind blowing, very moderately, they struck altogether, tied the boat to a rock, and refused to go on unless I paid them a dollar. I took no notice of their demand, but laid myself down at the bottom of the boat, and bade them good night. They ate dried salmon and drunk "brandevin" for about three-quarters of an hour, and then went on; but the drunken man was now quite useless; he merely splashed the water and rolled about, while the boat made a very curious course. At one moment it was nearly capsized, for they were running it ashore upon a sloping piece of rock which would have uplifted the bow and sent the stern under water; but I took the oar from the entirely drunken man and just pushed off in time. The other looked over at the deep blue water, and the steep rocks above, in a very uncomfortable manner: he was evidently frightened, and when I strapped on my knapsack and made them understand that I was quite prepared for swimming, and that I had only saved the boat for the sake of my knapsack, which was lying under the seat, he became quite civil and humble. His drunken helpmate continued as random and stupid as ever, but persisted in rowing; and as they had to keep close to shore to escape the wind, the boat was in continual danger of running into the rocks. I sat with my

arms folded at the stern, and told them that they might capsize the boat as soon as they pleased, when I should swim to a landing-place and walk back over the rocks; showing my map and compass to prove that I could find the way. The partially drunken man became almost sober, and offered me some brandevin by way of conciliation; this of course I refused, but I took an oar and pulled, and we now made some progress, until after rounding a projecting arm of the mountains, when we became exposed to the full force of the wind. The comparatively sober man pointed to a track over the rocks which leads to Lunden, the station we were bound for, and I gladly got ashore at the first practicable landing-place, paid them the price agreed for the whole journey, and walked on.

They had taken me about half way, and it was growing dark and raining. At about ten o'clock I reached a little village, and found that it was not Lunden, but Norum, with its church close by. It grew very dark, and I had much difficulty in keeping the track; but I walked on till past midnight, passing many houses and much cultivated land. I inquired at several of these houses, but such inquiry is a more difficult matter than might appear to any one who is unsophisticated in matters of Norwegian domestic architecture; for bells, knockers, locks, and bolts, are equally unknown, and all the houses are in the utter darkness of a wet cloudy night. I opened one door and called out, but got no answer; then I stepped forward and found it full of hay. Trying another, I found that the inhabitants

were cows; then another, which was a storehouse of cheeses, pails, and agricultural implements. Walking on farther, I opened another door, stepped forward into a broad dark vacancy, and heard around me several snorers; I called and coughed, but the snoring continued uninterrupted. After some little hesitation and compunction on the score of impertinent intrusion, disturbing the people, &c., I took out my box of wax vesta matches and struck a light; this flash of light startled all the sleepers at once; they sat up in their beds, and disclosed the fact that nightshirts are not fashionable in these parts: but they were very civil, in spite of being thus unceremoniously startled, and told me that Lunden was some distance farther.

At one of these places I was rather startled myself. It was a hay-house partly filled, and being vacant near the door where I stood, I struck a light, when suddenly a man in the costume of Paradise arose from out of the hay close by my feet. These hay-houses in Norway correspond to the "spare rooms" of English domestic economy, and are used for sleeping apartments when there is a pressure of visitors.

At last I reached a house, which, after waking the host and hostess by means of my portable lightning, I found to be the Lunden station. I was kindly and hospitably received, and provided with a supper of fladbröd, and "smoer," and sour milk. The house was a poor one, but there was the old simplicity and kindness I have become accustomed to associate with

Norway, and which more than compensates for deficiencies of physical comfort. The altercations with the boatmen of Sogndalsfjoeren, their general conduct, and the feelings they awakened, were a sad rupture of these pleasing associations.

CHAPTER XIV.

The Naero Fiord—Gudvangen and the Naerodal—Out for the night again—Mountains safer than plains for out-of-door sleeping—Returning from church by water—Sunday costume—A jolly boatman—Night on the fiord—The Voring Foss—A project for Barnum—Sailing before the wind—The station at Utne—A wonderful cup—The origin of corrugated zinc and iron—Deference to Englishmen—The cost of boats in Norway—How to make an economical yachting tour in Norway—The Folgefond—Varying saltness of the fiords, and its possible effects on animal and vegetable life, a subject for investigation.

In the morning I started by boat, with my host and another man, for Gudvangen, distant 3⅜ Norsk miles, about 24 miles English; a good day's work. These men were well satisfied with the legal fare.

The assistant boatman might have been transported direct to Venice, and if there upon the piazzetta, crying "Barca, barca, vucol barca, Signore," would not have been recognized as out of place, except by a large round silver brooch he wore in his shirt-front. His physiognomy is of the same type as I had observed for the first time at Sogndalsfjoeren—dark hair and eyes, large nose, muscular swarthy cheeks, and a rather lank bony figure.*

* This physiognomy I have since found to be characteristic of the peasants of the Tellemark and neighbouring districts.

The scenery of this fiord is very grand; very much like the lake of Lucerne at its wildest portions, and quite equal to it. At the distance, glimpses of the Justedal snow-fields are obtained.

The Naero Fiord, a branch of the Sogne Fiord, is grander than any part of the lake of Lucerne. It is the grandest lake I have ever seen. The name of narrow fiord well describes its chief characteristic. It is an irregular sea-filled gorge between perpendicular rocks rising to a height of 3,000 feet or more: Murray says 5,000 feet, but this, I think, is an excessive estimate. The summits of the mountains are probably about that height, but not the walls that dip into the salt lake.

It was curious to see porpoises and a grampus rolling about in such an apparently inland lake as this. Eagles are not uncommon hereabouts: I saw two in the course of the day. The boatmen call them the "*örn*," pronounced "earne," the same name, and apparently the same species, as the Scottish eagle.

I landed at Gudvangen in the afternoon. This is the port of the Naerodal, or narrow valley, a continuation of the same rock-walled valley as the Naero Fiord, but with a river at the bottom, instead of a branch of the sea. The hostess of Gudvangen was not a pleasant specimen: she brought me a very skinny allowance of fish and bread, and charged a mark for it—the which mark she clutched with a miserly expression that was quite picturesque in its way. Murray's unfavourable criticism of this establishment appears to be quite correct.

J. Steeple Del.

M. & N. Hanhart's Chromo Lith.

ENTRANCE TO THE NAERÖFJORD.

Published by Smith Elder & Co. 65 Cornhill London. 1859.

There is a sort of Staubbach waterfall here, which comes over a precipice nearly opposite the station. It is called the Keel Foss, and is estimated in Murray's "Guide" at 2,000 feet high: if so, it must be the highest fall in the world; but I think that half that height is much nearer the truth.

I walked up this very singular and magnificent valley, between its great walls of rock, and past the curiously-shaped sugar-loaf mountain that stands like an obelisk, and forms one of its most remarkable features, until I reached the upper end of the valley, which is closed in by a pyramidal mountain, standing bolt upright in front of the road, and apparently defying farther progress. A zigzag road, which is an engineering triumph, overcomes this obstacle; and from it magnificent views of the valley and fiord are obtained. There are two very fine cascades, which fall almost in front of this road, and are well seen from it.

I started from Gudvangen at about six o'clock, intending to stop at the next station, some two hours' walk ahead; but passed it without being aware: I only remember some dirty huts about the spot. At about eleven o'clock I reached the next station, Vinge, entered it, struck a light, and found a dirty man lying in a dirty trough: not a raised box, as usual here, but a wooden trough, lying on the ground. In another trough, on the opposite side, was an equally dirty woman; there were some children and other people distributed about in similar troughs on the other parts of the floor. The man made some surly answers to my

inquiries, and did not show any symptoms of intending to rise. I was quite disgusted, and made up my mind to walk on. It appears that this station and the one previously passed are not used at all as sleeping-places, but merely for the changing of horses: tourists coming this way all sleep at Gudvangen.

Walking on a mile or two farther, I made another attempt to get a bed, which was equally unsuccessful. Close by the road was a tempting hayfield, with the new-mown hay stacked on wooden frames or horses, so I spread a little of this upon the ground, and laid down by the side of one of the frames; but in a very few minutes I found—what in the dark I had not observed—that the field was a spongy semi-bog; the water soon soaked through my bed of hay, and my clothes also, and I was glad to walk on again to dry myself.

In the absence of the dry, crisp heather, or reindeer moss, a nice flat piece of rock is, after all, the best outdoor bed; and it is always safer to sleep upon a mountain than upon a plain. The dews and night mist—dampness and malaria—settle in the plains and lower valleys; but upon the mountain sides and summits, when it is not actually raining or "mizzling," there is dry, safe ground always to be found, and an atmosphere which may be cold and benumbing to the toes and fingers, but is not liable to engender ague or rheumatism. I found such a stone a little farther on, where the road rose, and slept comfortably upon it for a couple of hours, until the day dawned.

Walking on through grand and beautiful scenery,

and past waterfalls and lakes, I reached Vossevangen, at about six o'clock. This station is prettily situated on the banks of a lake, with fertile country and wooded hills around, and is well provided with food: even such luxuries as white bread may be obtained here. After a supper, or breakfast, whichever it may be called, I went to bed, and slept till midday, spending the afternoon idly and luxuriously, bathing in the lake, lounging on its banks, writing letters, and fishing: but, cockney-like, I caught nothing.

At this part of my diary there is a note recommending all tourists in Norway to ask for pancakes, called "pankucken" in Norsk. I was told by four Englishmen I meet here, and supped with, that this luxurious food may be obtained at most of the stations: this was a new fact to me, and quite worthy of record.

Walked on next day over beautifully wooded country, and through rich, rocky glens, passing a dozen or so of waterfalls and several lovely lakes. It was Sunday, and there was a Sunday calm and brightness in the air, and over the country all around. On crossing the lake at Graven, the people were coming out of the church on the side I was approaching, and I met them as they walked down the hill towards the water-side. They all embarked and crossed the lake, while I ascended the hill, commanding a fine view of it. The effect of this procession of boats, creeping slowly and silently along, was very picturesque: the white caps and red dresses of the women contrasted finely with the dark waters of

the lake and the wooded hills around. The situation and general aspect of the lake are suggestive of solitude, and this seemed like an unaccustomed holiday outbreak upon it.

There is decided character in the costume hereabouts: the men wear short jackets and vests, with double rows of showy glass buttons on them; some have Brummel hats, and others glazed sailors' hats. The women dress very gaily: a white handkerchief is folded over the head, fitting closely to its shape; then by means of a wire or cane it is stretched over the top of the head in the form of a large flat arch, spreading far out at the sides, and terminating in large wings, while the loose remains of the handkerchief fall down partly behind and partly at the sides: altogether it forms an elaborate and extensive specimen of millinery architecture. The bodice of their dress is a sort of open waistcoat of scarlet cloth, with a bright green border, the lower part of it disappearing under the skirt, which comes up very high; the open part of the vest being filled with a breastplate of embroidered cloth worked elaborately with brilliantly coloured wool and silk: some have bright glass beads worked in with the wool, and the more aristocratic have breastplates worked with gold and silver thread. I saw one matron, whose breast was covered by one great central star, the rays alternately of gold and silver, and the centre of glistening beads: it was altogether on so magnificent a scale, that only a stout woman could find room between the shoulders to display it all at once. Besides these, they have silver

and silver-gilt trinkets hanging from the neck; I am not sufficiently versed in jewellery to give them a name, but they may be described as cup-shaped buttons without shanks, or brooches. They wear them about the neck; and when they have a sufficient number they make a necklace of them; while those who possess but two or three, simply hang them in the front of the neck. The men also wear large silver brooches in their shirt-fronts, and fasten the shirt-neck with silver-linked buttons.

The road now passes over a small fjeld on to Ulvik, a water station, where I tried to get a boat. The station-master, who was evidently endowed with the natural instincts of an hotel-keeper, did his best to hinder me and force me to take two men, or stop for the night at his house: this sort of dodging, however, is almost unknown in Norway. At first I asked for a boat; and a boat and one man was about to start, as a matter of course; but when he found that I was an Englishman, he stoutly maintained that two men were necessary, and I was kept above an hour waiting for the second man. At last I paid the host his tilsigelse, or fee for calling the boat, got in with the one man, taking an oar myself, and we pulled off, to the great chagrin of the landlord (the payment is twenty skillings per man per mile) and the satisfaction of the one boatman, a jolly fellow, with a club-foot and one eye, who evidently disliked the landlord and enjoyed his disappointment. As soon as he learnt how far I had walked, he insisted upon taking the oar from me, made a bed with his jacket and some

canvas, and would not go on until I laid down comfortably and arranged myself for the night, which was now coming on.

The night was very beautiful on the water; one by one the stars broke through the darkening curtain of the sky above, and the daylight lingered in the north, shining out from behind the purple edge of the sharp mountain ridges. I lay down lazily at the bottom of the boat; the old man rowing and singing the rude spontaneous music of a happy unselfish heart; then the daylight passed quite away, all the stars shone at their very best, and several meteors trailed along the sky. At about midnight we reached Vik, the station from which all tourists start to see the great Voring Foss. I invited the one-eyed boatman to take supper with me, at which he was much delighted; though the supper was very rude, nothing but bread, and butter, and cheese, and ale being to be had, though this house is so much frequented. This station is a very poor one: a small jackall to so great a lion as the Voring Foss; but when Norway grows more fashionable, as it doubtless must, there will probably arise a considerable hotel hereabouts.

The next morning I started on the way to the waterfall, making first for the Eidfiord Lake, and crossing it to Saebo. There is a fine example of a raised beach or terrace on this small lake. The valley above is very wild and grand, well worthy of a visit for itself, independently of the fall. It is terminated by a wall of rock that seems quite impassable, reminding one of the approach to the foot of the Gemmi Pass. A rough

zigzag path up this leads to a large rolling moor, surmounted in the far distance by the snowy peak of the Halling Joklen. The fall is somewhere hereabouts; a mile or two from the commencement of this moor: but it is not easy to find. I was told below that I should find a gorge to the left, and a thin thread cascade visible from a distance, and that immediately below this is the Voring Foss; but that in spite of these indications it is very difficult to find. This proved to be quite true, and in order to save time I made for the small farm of Höl, where, after consuming two large bowls of milk, I engaged a little boy to conduct me to the Foss. Most of the farmhouses have pictures of some kind; rude prints, portraits of King Oscar and subjects from Scripture history, prevail. At this establishment a great work of high art is carefully hung upon the wall and exhibited ostentatiously in the best available light: it is Bradshaw's Railway Map of England.

I saw the fall from two points: the first, a ledge of rock, from which the lower part is visible; the second displays nearly the whole of it. The torrent forming the fall flows from the melting snows of the Halling Joklen, and traverses for some miles the moor just spoken of. There it sinks into a gully it has cut, to the depth of some 200 feet below the level of the moor; and thence it pitches in a foaming mass down into a narrow gorge of fearful depth. The place from which I first saw it was a projecting piece of rock, not merely perpendicular, but undermined, and positively overhanging this horribly magnificent abyss. The rock is smoothed at the top,

and slopes downwards in a most slippery manner towards the overhanging precipice. A slater, a chamois hunter, or a Chamouni guide, might possibly venture to stand upon the brink, but I could not; so I laid down and let my face hang over, and shuddered even then. Plumb down below, a clear thousand feet or more, with no rock or anything to break the declivity, is the foaming pool of milky water into which the torrent thunders with solid, crashing energy. The idea of sliding forward and pitching down headlong after the manner of the water is almost suggested, accompanied with a horrible suicidal fascination—a sort of insane desire to do so. On the opposite side the perpendicular rocks rise two or three hundred feet higher.

The other point of view commanding the whole of the fall is rather less horrible. The fall itself is not a beautiful one seen thus from above: it being so much fore-shortened that its height, said to be 900 feet of clear fall, is by no means evident. The deep dreadful hole it has dug for itself by its everlasting pounding upon the rock is grander than the fall, and well worth a long pilgrimage. The cataract is not a graceful sheet of water, nor a waving mare's-tail fall, but a descending mass, a great lump of water, driving eternally downwards; demonstrating the tremendous and never-ceasing power of gravitation, and seemingly intent upon forcing a passage to the earth's centre.

The cutting made by this waterfall is altogether a very remarkable one; something like the gorge of the Tamina at the Baths of Pffefers. It must be about two

miles in length from the foot of the fall to its outlet at the bottom of the zigzag path up the barren mountain; its depth is above a thousand feet, and it is only four or five yards in width. I was sorry that I could not afford time to explore it. At the expense of a day's work and a ducking, I have little doubt that the fall might be reached, by climbing and wading, and perhaps, in some parts, swimming up this gully.

It would pay very well, I am sure, to buy the farm at Saebo, and build a rough hotel there with a wooden gallery like that in the gorge of Tamina. I am no advocate for artificial adjuncts to waterfalls; but in this case, where one of the grandest, if not the one grandest fall in Europe is almost inaccessible, an artificial approach to it, displaying not only the fall but the magnificent gorge it has cut, would be perfectly permissible, and the payment of a toll for the use of the gallery (as at Pffefers) quite legitimate. The present station is not only a very wretched one, but is so far from the fall that it is a day's work, whether by horse or foot, to go to it and back again; leaving very little time for contemplating the fall and making an exploration of its vicinity. An inn at Saebo would be within a couple of hours' walk of the top of the fall, and close by the outlet of the gorge. The whole concern might be bought for a trifle—waterfall, gorge, valley, and farm; some other waterfalls higher up might be included, and the mountain thrown into the bargain, as a consideration for cash payment. It would be the grandest show in Europe. Is there no Barnum

that will bid for it, and work it in conjunction with the steam communication on the Hardanger Fiord? If not, let us form a Limited Liability.

On the way back, the boatman who rowed me across the lake was eloquent in his account of the visit of the King of Holland: how he gave five dollars for a bowl of milk, two dollars to himself for rowing him across, and a dollar each as "drikkepenge" (drink-money) to all concerned.

The next morning I started with a boat and two rowers for Utne; distant two Norsk miles. It was a windy, squally morning, but the wind being aft, we put up a sail, and the boat, a very small one, rushed through the water during the squalls at a wondrous pace. It was a very exciting sail; the boatman holding the sheet in his hand, kept the sail square until the bow of the boat was fairly buried in the water, as the strength of the wind increased. The men told me that such a boat, with its mast and sail, can be bought here for five or six dollars.

On reaching the Utne station, I was told that if I waited for an hour, I could have hot "mad:" that is, a dinner. Fearing that such unusual luxury might corrupt me, I told them that I could not wait, but would be glad to take anything they had ready—expecting, of course, some fladbröd and smöer. To my surprise, a well-cooked grouse was brought in about ten minutes after, with salad; and after it some gooseberry-fool, with delicious cream. There were two polished mahogany chests of drawers, besides other furniture, and a floor so clean

that it seemed never to have been trodden on: in addition to all this, the walls were papered. This is, to my taste, one of the best stations I have met with in Norway. It has no hotel pretensions, yet there is a certain air of elegance, combined with a thorough farmhouse homeliness and comfort; and the cleanliness of the place is quite exhilarating. The charge for all this was one mark, or elevenpence English.

It was well worth the money, and a day's journey, to see the work of art borne by the hostess upon her head. It was a mighty structure of white cambric, or some such material, similar to those already described (page 252), but far more marvellous. The great arch overhead spread aloft like a peacock's tail; and, instead of depending on wire or cane, was self-supporting by virtue of starch and a wonderful complication of fine crimping: I believe that is the proper term; if not, I will try another, and say "goffering."* The immaculate whiteness of all its vast expanse was in perfect harmony with the cleanliness of the whole establishment.

This station is situated at the commencement of the Sör Fiord, which is one of the terminal branches of the Hardanger Fiord. I walked on over a rough path, sometimes keeping the shore, then mounting the steep hill sides, commanding fine views of the fiord. There is a fine combination of savage grandeur and smiling

* Zinc or ironwork treated in the same way would be called "corrugated." Our modern corrugated zinc for roofs and walls is but an imitation of this method of strengthening a thin material that has been practised by laundresses for ages.

beauty here. Grand mountains slope steeply down to the water, thrusting forward sharp promontories, between which are sheltered bays with verdant banks of gently sloping cultivated land, with comfortable, clean-looking farms dotted here and there. There is much game hereabouts: Utne, I have no doubt, would be a capital station for a sportsman.

The quiet, light-haired, characteristic Norsk people prevail here. The dark Celtic-looking features which were common from Sogndalsfjoren to Vik, have disappeared again. With the true Scandinavian type of face and head, there are combined more cleanliness, better farming, and more of the aspect of comfort and simple honesty. The red waistcoats, silver ornaments, and plaited hair still prevail.

An Englishman, or a tourist of any country, is evidently a great curiosity here. Many pass this way, but they go by water; the land-path is quite a byway.

The men and women were busy in the fields gathering the harvest of oats and barley. They left their work as I approached, and asked me many questions; but their manner was so simple and unobtrusive that there was no rudeness in their curiosity: indeed, many of them took off their hats and stood uncovered when I told them that I was an Englishman. When they become better acquainted with travelling Englishmen, this compliment, I fear, will be discontinued.

On two or three occasions when these gossiping halts occurred near to a farmhouse, one of the girls from among the group ran off, and speedily returned

bearing a bowl of milk, which was given me to drink. One of the farmers told me that the path on this, the west side of the fiord, was so bad that I should not reach Flesje, the point I had fixed upon for the night, until two in the morning. He advised me to cross, and showed me a man going over, who rowed me across the fiord, and refused to take any payment.

I walked on along the eastern shore, encountering the same kind of simple curiosity and civility as before. Being recommended to stop at a house built close on the water's edge, near to Ullensvang, I found it to be the new inn of Lofthuus partly built. The portion that is finished is very comfortable, and I was served with *wheaten* bread and a good bed.

The next morning I took a boat. The boatman had been a sailor in an American brig, and spoke nautical English: he had a new boat, rather a good one, adapted for two rowers and four or five passengers, and told me that the boat, with a pair of oars, cost 7 dollars; or 12 dollars, including mast, sails, and rudder. For 50 or 70 dollars—*i.e.*, from 10*l.* to 14*l.*—a "skyter," or sloop, with a tall mast and sails, a deck, and a cabin, in which two or three persons may contrive to sleep, can be purchased; and for about 25*l.*, a vessel fit for sea, in which the voyage round the North Cape might be safely made in summer time, and even the return journey to England. He pointed out to me two or three such vessels, which might pass muster at Cowes, in foggy weather, when the absence of copper-bottom, &c. would not be visible.

A party of four or five might start from Bergen on this part of the Hardanger Fiord, purchase such a vessel, lay in a stock of biscuits, &c., and with the aid of a gun or two, and some fishing tackle, obtain the rest of their food, and visit the best parts of Norway at a very moderate expense, provided all the party were something of sailors. This man, whose name is Peter Hartsberg, of Ullensvang, told me that he would undertake the piloting and management of such a vessel. I should say that four or five hardy fellows might, in this manner, start from Hull, have two months' yachting and some inland excursions, fare handsomely all the while, and return to England at an expense not exceeding 20*l.* or 25*l.* each. Idlers and coxcombs, who must go ashore and "do the snobbish" to astonish the natives, would of course require five or six times as much. With careful management, all the fiords, and the voyage to Hammerfest, might be "done" in a boat that would cost but 5*l.* The only difficulty in this case would be in coasting from the mouth of one fiord to another; but by choice of weather this might be quite safely done; the distance to be traversed on the open coast being seldom more than a day's row or sail, and there are plenty of bays and harbours everywhere. The small boat has some considerable advantages over a large one; it may be rowed in calm weather, and can run close into the shore and creep behind projecting rocks, when shelter from the wind is desirable. The only difficulty with such a boat would be the crossing to the Loffodens; but as the steamer is plying weekly, this journey might

be made, and the boat sent forward along the coast to meet the steamer on its return to the first mainland station.

The purchase of a boat appears to me a far better investment than the purchase of a carriole. The best scenery in Norway is on the coast, and near the fiords; the best stations are those on the fiords, and even the inland scenery is all very near the fiords. A boat will carry a good stock of provisions, besides shooting and fishing materials; and if in addition to this a tent were provided, no cabin would be needed, for the tourist might land upon any convenient rock, make up his bed, and pass the night luxuriously. This would be the most enjoyable, and the cheapest way of visiting Norway. A few lines and hooks to hang over the boat side will always afford a supply of food.

The scenery of the fiord continues very fine, combining much grandeur with a Zurich-like sweetness. The glaciers of the Folgefond, another great ice-field about forty miles long and ten to twenty broad, overhang the lower part of the fiord, but do not descend very low, on account of the precipitous character of the rocks affording but little resting-place for the ice. This arm of the fiord, though a branch of the sea, is so far from the opening of the fiord—more than a hundred miles—that the saltness of the water is scarcely perceptible to the taste. One might drink half a pint of it without observing it to be at all salt, unless especial attention were directed to the fact. Such being the case, I was much surprised at finding that the rocks

are thickly grown with seaweed, a species of bladder-wrack, similar to that which abounds on our own coasts, but of paler colour. The mussels are also very abundant, but very small; they diminish in size as the water grows less salt.

The late Professor Edward Forbes brought to light some very interesting and important facts by dredging up animals from different depths of the sea-coast. He found that there were zones of characteristic animal life, corresponding to zones of depth; and thereby geologists have been able to come to curious conclusions respecting the depths of the ancient seas in which the animals lived, whose fossil fragments tell the wondrous history of the world's early growth. A similar investigation of the plants and animals of estuaries, and their relation to the varying degrees of saltness, would, I suspect, be very interesting; especially as there are many reasons for believing that much of our coal was deposited in fiords, or even inland lakes. The Norwegian fiords and the Gulf of Bothnia afford fine fields for such inquiry.

CHAPTER XV.

The Tyssedal and Skieggedal—Glacier ruins on a grand scale—An unvisited region and neglected waterfalls—A singular glacier and its mode of formation—Influence of the amount of rainfall in determining the height of the snow-line—Odde—On the practice of maintaining footmen and other male domestics—Evidences of general honesty—A recently arrived pastor—Position of the Norwegian pastor—Importance of practical education to the clergy—A hunt for a lodging—The Haukelid Fjelde—A wet bed—How to pass a wet night on the fjeld—Norwegian mode of preparing coffee—A hint for English cottagers—A returned emigrant.

I LANDED at Tyssedal, at the mouth of the Skieggedal, where, according to a Norwegian I met on the way, there is one of the finest waterfalls in Norway—one not mentioned in Murray, and apparently unknown to English tourists. The only mention I have found of it in any book, is by Professor Forbes, who heard its roar (or what his guide supposed to be its roar) when crossing the Folgefond, which is above twelve miles distant as the crow flies.

I walked, or rather climbed, up the valley by a difficult track, over magnificent glacier ruins—sometimes struggling among moraine boulders, then across vast slopes of bare, smoothed rocks, so steep as to be almost dangerous: some parts of the latter would be quite so, or even impassable, but for trunks of trees laid across and fastened together, so as to afford foothold.

In most places these steep slopes terminate in a precipice of considerable depth, with the torrent roaring below. It is something like walking on a slated house-roof of gigantic dimensions. The glacier slopes in this valley are even more remarkable than those of the Justedal.

After two or three hours of this sort of scrambling, I came upon an oasis amidst the desolation, on which oasis are two farms. I asked for Jacob, to whom I had been recommended by the pastor of Ullensvang. Jacob is the principal farmer, and owns the greater part of the valley. I found him working in a field, and he took me to his home, he and his wife bidding me a kind welcome. They are a young couple, recently married; and the house, though poor, is clean and comfortable. They gave me a supper of lake trout and ale, and a good straw bed, with clean blankets and no fleas, in an adjoining building.

After breakfast of trout and coffee, I started for the falls, under the guidance of Jacob. We first crossed a little lake, then went on farther to a large one, some four or five miles long: a wild mountain tarn, with precipices around. Over one of these, at the upper end of the lake, is the Ringedals Foss, called also the Skieggedals Foss. It is a very beautiful waterfall, about 600 or 800 feet high: the stream just grazes the rock nearly all the way, spreading into a snowy sheet, and throwing out a vast amount of spray. It is something like the Mongefoss; not so high, but the quantity of water much greater: it is, perhaps, the most beautiful

J. Steeple Del.

M & N. Hanhart, Chromo Lith

THE TYSSE STRENGER FALLS IN THE SKIGGEDAL.

Published, by Smith, Elder & Co 65, Cornhill, London, 1859.

fall I have seen in Norway, but not the grandest. There is no difficulty in approaching it.

We proceeded then to another fall on the north side of the lake. After about an hour and a half of hard scrambling over rough boulders, with much rank vegetation springing between them, we came to the foot of the Tysse Strenger, as Jacob called them. They are twin falls, pitching into a common chasm. They start at some distance from each other, but in their long journey downwards are so much spread out by the resisting air, that they meet and mingle into one cloudy mass of spray below. The lighter fragments of the spray are carried far away from the body of the falls in a diminishing cloud, extending at its extreme limits to a distance of quite half a mile. This has brought about a curious result: the formation of a glacier of an entirely abnormal character. Although so late in the year, and the sun's heat so strong, the gorge at the foot of the cascade was bridged over with ice, under which the waters flowed. This, though thus undermined, was so strong, that I and Jacob walked over it with perfect safety: from it, in fact, the best view of the falls may be obtained. Like the ordinary glacier, it is crevassed; though I am not prepared to state that the crevasses are formed in a similar manner. I was prevented by a broad blue crevass—reminding me of the "bergschrund," or last upper crevass of an Alpine snow-field—from walking quite close to the falls; but was near enough to get well wetted while standing on any part of this ice-bridge, or waterfall glacier. The mode of its formation is

pretty evident. During the winter, the spray is of course frozen, and this cloud is so dense that it forms a great accumulation of snow, too deep for all the summer's sun to melt; thus bringing the snow-line in this small spot some thousands of feet lower than that of the country generally, and indicating in a very striking and instructive manner one of the causes (and one that has not been sufficiently considered) which determine the height of the snow-line: viz., the quantity of rainfall during the winter. It is evident that with a given amount of summer heat, a corresponding depth of snow is capable of being melted. With a constant amount of snow-fall during the winter, the height of the snow-line would vary directly with the amount of summer-heat; and, on the other hand, with a constant amount of summer heat, the height of the snow-line would vary inversely with the amount of winter snow-fall.

This requires to be continually regarded in all speculations concerning the existence of a "glacial epoch," and in all inquiries as to the causes of the periodic advance and recession of glaciers in particular localities; especially in latitudes where the winter is long. All around this small permanent glacier, or snow fond, is a rank vegetation, which extends up the hill sides far above it.

On our way back, Jacob stopped and listened; we heard a rustling, and he said that it was a bear. We followed in the direction of the sound, and after going a short distance found a sort of track faintly indicated

by the treading down and bruising of the herbs growing between the boulders. Following this, we came upon some bear's dung, but did not catch a sight of Bruin himself. Had I been alone I should have preferred steering in the opposite direction; but Jacob assured me that the bear, unless wounded, or its young molested, will never attack a man: that he has been within a yard of a bear, and the bear has civilly walked on. He was very anxious to track this one to its lurking-place, as there is a price set upon the heads of bears by the government; he had also a personal objection to these animals as tenants upon his property, which extends hereabouts. I would recommend the enterprising Englishman before alluded to, who has been bear-hunting in Norway for the last three years but has not yet seen a bear, to try this valley, and consult Jacob.

Jacob informed me that only two other Englishmen had, within the memory of man, visited this valley; and that I was the first who had explored these twin falls: the other Englishmen having only visited the Ringedals Foss.

I should recommend all tourists who are tolerably strong on foot, to make an excursion up this valley and visit these falls. The wildness of the valley itself, and its very remarkable glacier ruins, well repay the rough journey; and both of the falls are worthy to rank amongst the finest in Norway.

Some fine glimpses of the Folgefond and the fiord are obtained in looking down the valley from the upper

ground near the falls. A day and a half is quite sufficient for this excursion, half a day for the ascent of the valley, and a day for exploring the falls and returning; or, with a moderate effort, it might be all done in a day.

Walking back to Tyssedal, I took a boat, and reached Odde, at the end of the fiord, the same evening.

The closing of the fiord at Odde is very fine, and the situation of the station very beautiful. I had almost said the situation of the hotel; but this would be a libel, for the disagreeable animal with a cloth squeezed between his elbow and side is not to be seen here. Fortunately for me, and all who feel as I do, the Norwegians have no idea of male domestics; they cling to the natural notion that household duties belong to woman. How anybody not absolutely sold in slavery to the dreadful despotism of fashion, can prefer a male to a female waiter, I cannot possibly understand. On the very few occasions when I have dined with a footman standing at my chair-back, my appetite has been spoiled by the disagreeable sensation of a sort of nightmare influence behind me, and a feeling that the poor fellow must be either ashamed of his occupation and continually wishing to be a blacksmith, or else satisfied with it and therefore out of the pale of manhood altogether. Women delight in feeding or nursing, or somehow personally tending their fellow-creatures; and when they wait at table, do so cheerfully, and are performing their natural duty. Men waiters are always disagree-

able and grudging in their attendance, and seem to be enviously taking notes of how much one eats.

It rained the next morning, and this supplied me with an excuse for lingering in these luxurious quarters, to write letters and get my shoes patched; for among other excesses of civilization, there was a travelling cobbler located at a small farm hard by. I also went out a-fishing in a boat, with some tackle lent me by mine host, and caught a haddock, which I brought back in triumph, and had cooked for dinner as a first course; it was followed by stewed hare and jelly, with potatoes and other vegetables, white bread and pancake, and cherries for dessert. After this saturnalia, I started again, at about 5 P.M., on my way to a district where such excesses were not likely to be repeated.

I proposed to walk on to Skare, the second station beyond, and about fifteen miles distant; but on reaching the lake of Sandven, found the road so abominable, that I was content to halt at Hildal, the first station. There, after the usual supper of fladbröd, butter, and sour milk, I slept in a good, clean straw bed, in an upper reserved room, where there was a multitude of boxes containing the family wealth, and, among other things, a watch and some silver trinkets hanging to nails upon the wall. The people must be very honest, or they could not trust a savage-looking vagabond-stranger like myself so unsuspiciously.

The next morning I walked on up the valley by a rough, winding path among wild rocks and precipices, tangled with pine and birch forests, among which there

is many a noisy torrent and white cascade. I passed several clusters of poor hovels on small alluvial flats, where the river had once been a lake and left some soil behind. There are some magnificent views of many valleys seen at once, where the path follows a ledge upon the face of a steep precipice, and thus winds round the mountain side at a great elevation. At one part it is bounded by a wall of rock which descends perpendicularly to the river about 1,500 feet below: it finally rises to the bare rocks and snow patches. Waligorski's map is quite wrong here, it places the road on the opposite side of the river.

Murray's "Handbook for Northern Europe," p. 187, speaking of this route, describes the stage from Seljestadt to Skare as "the last station practicable for a carriole." This is rather amusing to read on the spot, as the path in some parts is a steep staircase, about three feet wide, ascending the stony slope of a mountain side, having an angle of about 80°. The rude steps are about eighteen inches high. Norwegian ponies and carrioles certainly do make the passage of some astonishing roads, but this one is rather beyond their powers.

The summit of the range being reached at last, the track then descends to a dark, quiet lake, at the upper or alluvial end of which is a cluster of farms, forming a sort of village, called Roldal. This day's walk was a most magnificent one.

Inquiring of the people in the fields about a lodging, I was directed to "Robert," or to the "Prestgaard," *i. e.* the parsonage. A kind man in wooden shoes took

me to Robert's house, when we found that all the inhabitants were away to the saeters, except a travelling shoemaker, who had taken his temporary quarters in one of the wooden huts of which the farm is composed; the rest being locked up.

We tried another house with the same result. I had some diffidence about applying to the priest, as in such a case there must be a difficulty in paying for one's entertainment; and it is rather presumptuous to call and ask for hospitality without any introduction. In this case, however, as there seemed no other alternative, I did apply; not directly for food and shelter, but for information as to where I might obtain it. A young man came to the door, who evidently wished me farther. He told me that he had recently arrived here, and pointed to the house of Robert as my best chance. He was very different in appearance from the other pastors I have seen. They were all rough, farmer-looking men, of a decidedly practical turn of mind; this was a pale young man, dressed in town costume, and had recently left Christiania, having been transplanted from the refinements of city life to these rude quarters, where he must labour in obscurity, with no other associates than the unwashed and untutored peasants around him. His pallor, high white forehead, and nervous temperament, all indicated a hard student, who had probably earned honours at the university, and had dreamed of intellectual fame. He appeared like a man suffering deeply from this isolation and disappointment, and very much soured thereby.

Certainly a double-refined literary university education is a most unfit preparation for a clergyman who is to be placed in such a position as this. A short apprenticeship to a few useful trades, such as carpentering, cooperage, shoemaking, and above all, a knowledge of medicine and surgery, would be in every respect better than Greek, Latin, metaphysics, mathematics, and controversial theology. A good knowledge of the applicable scientific improvements in agriculture would be an immense boon; and as all the pastors are farmers, their farms might thus be made models for the district, and through them any amount of improvement could be introduced.

I tried again at the house of Robert; and the shoemaker, after some search, found a key which opened a room in which stood a bed. He also supplied me with some raw ham and fladbröd. I had by this time become independent of cooking, and could heartily enjoy a meal of raw ham and bruised oats in the form of fladbröd. The kind man with the wooden shoes accompanied me throughout my search, and did not leave me until I was fairly housed; yet I had great difficulty in inducing him to accept a small payment in return.

The next morning I started to cross the Haukelid Fjeld into the Tellemark. The distance is six Norwegian miles; which are rather more than seven English miles in length. Forty-three miles over wild mountains is fully equal to sixty on ordinary roads; and therefore I allowed a day and night for the journey. There is a clearly marked track on the map, but no saeter, or

halting-place of any kind, indicated for the whole distance. The man with the wooden shoes urged me very strongly to take a guide, but I was too conceited of my mountaineering skill to do so. Besides, Murray says that it is a post-road, and talks coolly of carrioles, long stages, &c.; which is even more amusing than the account given of my previous day's route.

There is a sort of road for about a mile out of Rödal, but not adapted for anything with wheels. Afterwards it is a track about a foot wide, mere shoe-wearings upon the rock; and even this track is lost altogether at the crossing of every bog: of which there are many. The track is really a difficult one to keep; for although not marked on the map, there are many saeters, and paths leading to them, which may be easily mistaken for the track across the fjeld. This fjeld, like the others I have crossed, is for the most part a dull, dreary waste: a rolling moor, diversified with bogs, many stagnant pools or lakes, and occasional mountain ridges. I walked on all the day long over this sort of ground, and at about nightfall came upon a ridge of mountains.

As soon as it became too dark to follow the track any farther, I sought a bed-chamber, and found a capital one; a sort of shallow cavern formed by an overhanging or undermined mass of rock, the floor of which was a nicely hollowed, clean block of stone. I ascertained this by throwing a lighted wax match into it; thinking it just possible that such snug quarters might be already tenanted by a bear, or a family of wolves.

Having thus learned that the premises were unoccupied, I crawled into them, put on my extra shirt over my waistcoat, and all the socks I possessed on my feet and hands; then coiled myself into the hollow place in the stone, laid my pistol within easy reach, in case of quadrupeds, and using my knapsack for a pillow, soon fell asleep. After about two hours I awoke, and found myself terribly cold; on further investigation, I perceived that I was wet also: in fact, that I was lying in a pool of water, and that water was dropping from the rock above. Heavy rain was falling, the air was thickened with mist, and the nice clean hollow in the stone proved to be a basin, worn by the dripping from the rock above, and evidently a regular water receptacle.

The rain and mist, combined with the darkness of the night, rendered it almost impossible for me to proceed; yet, being so thoroughly drenched, it was not agreeable to stand or sit still. I was on the side of a mountain partly covered with low bushes and stunted birch-trees. After slowly proceeding a little way, a brilliant thought occurred to me: I determined to make a fire, and set to work accordingly. A withered tree offered fuel; but after three or four hours' perseverance, I only succeeded in getting up a crackling and a smoulder: but it served capitally to pass away the time. I should advise all benighted travellers to light a fire, or try to do so: the gathering of the fuel, the building it up with scientific arrangements for currents of air, the lighting and blowing, the awakening hopes when

a flicker arises, the fluctuations of despair when all is black again, carry one through the dark hours amazingly.

At daylight I found that I had wandered quite away from any vestige of the track, and therefore steered straight on by compass for an hour or two, until I came upon a track taking something like the direction of my route. I followed it to a place called Flathyl, a small settlement of wooden huts, where I might have obtained lodging and food, but my besetting sin of stubbornness would not allow me to do so; having started for Gugaard, the mental pain inevitably resulting from falling short of that intention would far exceed the amount of physical inconvenience arising from walking ten miles farther: for such is the distance I had yet to make, according to the information I received from the inhabitants of Flathyl.

It appears that I had gone quite away from the proper track, and got on to another which runs nearly parallel to it at a distance of five or six miles further south. It may be that I lost it at an early part of the journey, where, according to my map, it passes between the Ule Vand and the Staa Vand, and then continues on the north side of the chain of lakes. Certainly I saw no path corresponding to the broad line marked upon the map.

I reached Gugaard at about nine o'clock in the morning, after a walk of above fifty miles, including my deviations from the proper track; and this over ground that can scarcely be measured by miles, the greater part

of the way having been over bogs and moraines, up and down mountains, &c. There is an immense number of small lakes on the fjeld, especially towards the latter part of this walk.

I found quite a fertile country at the journey's end, and a considerable number of farms. I stopped at one belonging to a man whom I overtook on the way. My host was a bachelor for the time, and alone in the house; his wife and family being at the saeter. He cooked me some coffee, and gave me fladbröd and cheese, of which I made a hearty meal.

I have found that the coffee is always good in Norway, even at the poorest places; and this, I think, is partly attributable to the mode of preparation, and partly to the fact that the stock of coffee berries at a farm is laid in only at long intervals, and thus it often happens that they have been kept for a long time. It is a fact worth knowing that the quality of coffee is much improved by keeping the berries for a length of time in the raw state: it has even been asserted that the commonest coffees, if kept a sufficient length of time, may acquire the aroma and flavour of the best Mocha. A ripening action takes place, which develops an increased quantity of the volatile aromatic oil, on the quantity of which the flavour of the coffee mainly depends. Moreover, the Norwegian farmers always roast the coffee as required, and grind and infuse it while still hot. The apparatus commonly used for roasting it is a sort of covered shovel, or tray, made of sheet-iron, and riveted to an iron handle. This is put into the fire, and the berries

shaken about in it. When such a special apparatus is not possessed, a frying-pan is used, which answers the purpose equally well. My host used one on the present occasion, and then turned the hot berries into a wooden mortar and ground them with a wooden pestle. This is the usual method of coffee grinding; and the wooden mortar and pestle appear to be kept exclusively for the purpose. The Norwegian farmers roast their coffee much more than our coffee-dealers do: they make it nearly black; and I think this is an advantage when the coffee is immediately consumed. It is not likely that our dealers who sell coffee ready roasted will over-roast the berries, as they lose weight in roasting, and the amount of loss is proportionate to the extent of the roasting: when roasted only to a reddish brown they lose fifteen per cent; to a dark brown, twenty-five per cent.

As the best means of preventing drunkenness is by supplying an agreeable substitute for intoxicating drinks, any improvement of the poor man's coffee is of great social importance; I therefore suggest to the benevolent ladies who so nobly exercise the attributes of woman by visiting with kind intent the dwellings of the poor, that they might do great service by teaching them how to roast, and grind, and make coffee; and, where it is practicable, by presenting the poor man's wife with an apparatus for the purpose. It appears to me that the iron tray and the wooden pestle and mortar answer their purposes admirably; and the two might be profitably manufactured and sold for one shilling, if a quan-

tity were in demand. From what I have seen, with the wooden pestle and mortar, the newly-roasted coffee may be pounded as quickly and effectually as it can be ground in a small coffee-mill; and if kept exclusively for this purpose, it would be a valuable addition to the domestic furniture of a cottage. One of these, with a roaster, a pound or two of coffee berries, and a lesson in the use of them, would be a most suitable marriage present to the bride of an agricultural labourer; for by their judicious use she might win her husband from the beer-shop, and thus avert the domestic miseries so commonly associated with it.

The wooden walls and ceiling of the room in which I had this meal were curiously decorated; being painted all over with figures of ovals within ovals, considerably eccentric, reminding me of diagrams of the microscopic structure of starch granules.

After a few hours' sleep, and a repetition of the meal just described, I started at two in the afternoon, and walked on by a good road to Nordgaard. On the way I was hailed by a man on the other side of a hedge, to know if I had seen two horses on the fjeld. On finding me to be an Englishman, he spoke to me in good English, and told me that long ago he emigrated to America, and lived there for sixteen years; but the desire to see his "Gammle Norge" again had brought him back, and finding his daughter married, with a farm and family about her, he was persuaded to remain and end his days there. I asked him which he liked the best, America or Norway? He said that he liked

America the best. Why then did he not return? He tried to explain, and after some help in wording and shaping the expression, told me that he liked America, but did not love it; and that he loved Norway, but did not like it; and as loving was stronger than liking, he resolved to die at home.

CHAPTER XVI.

The silver brooches, &c. of the peasantry of the Tellemark—A commercial suggestion—Painted chambers—The Tellemark as regarded by Norwegians—The Totak Vand—Horse-racing—The "houseman," or farm-labourer, of Norway and his relations to the "bonder," or peasant proprietor—Social equality of farmer and labourer—The merry-makings of Jule time—The poor relations of our Norman aristocracy and the royal families of Europe—Carved cottages—A region of soft bogs—How to escape smothering in a bog—Presence of mind attainable as an art—The "eng," or detached hayfarm—A mud poultice.

I ARRIVED early at Nordgaard, which is a rude farm station at the road side. All the men here wear fine silver buttons on their waistcoats, short jackets, large silver links at the neck and wristbands of their shirts, and silver brooches on the shirt-front. The brooches are of the pattern known by our goldsmiths as the "Maid of Norway" brooch, and are all of native manufacture. The one worn by the son of the host cost two dollars at Vinje (a few miles south of this), where it was made: it was of silver gilt, of rather elaborate pattern and fine workmanship. I think it might be a good speculation to purchase some of these for the English market; they would probably command a ready sale and good prices, as genuine Norwegian brooches: the patterns and workmanship are so quaint and peculiar that they could not easily be imitated by any of our short

mechanical processes of stamping, &c., and if they were made in England by the same processes of simple hand labour as in Norway, they would cost a great deal more, on account of the higher cost of such labour.

I slept in a painted chamber again, but the pattern was more elaborate than the starch granule decorations of my last night's lodging-place. There were processions of red, green, and yellow cavaliers along some of the beams, and similarly-coloured ladies bearing flower-pots on horseback on others. The apostles were distributed on other parts of the walls, the vacant spaces being decorated with paintings of independent flower-pots. There were no real growing flowers, and the floor was wretchedly dirty; the bed, as usual, of straw.

I was now in the famous district of the Tellemark, a district that even the Norwegians regard as romantic.

The peasants of the Tellemark are celebrated as the most picturesque people in Norway, on account of their jewellery, their general costume, their strongly-marked features, their poverty, dirtiness, and sporting tendencies. The Tellemark is the wildest, most barren and dreary, of the inhabited regions of Norway; the district and its inhabitants bearing a similar relation to the rest of Norway that the wilds and people of Connemara do to the rest of Great Britain and Ireland. A native Norwegian reared upon fladbröd, and accustomed from his infancy to rancid smöer, considers it an exploit, a great effort of hardihood and endurance, to make a carriole journey through the Tellemark; and the idea of voluntarily doing it on foot never suggested itself to

anybody but mad Englishmen: amongst whom I have evidently been classed by all the Norwegians to whom I have communicated my intention of finishing my tour by walking across the wildest part of this wild region.

The Totak Vand was my next destination; but the high road makes a considerable bend to Vinje, to avoid which I determined to go across the country: especially having been informed that there exists a direct track to a farm called Kosthveit. I walked on, accordingly, by the road until I reached a bridge, and on crossing it found the track described; which, though not marked in my map, is much more definite than many that are there marked. It ascended a high ridge, and on the way up I had a luxurious feast of wild strawberries, which are finer and more abundant here than I have found them anywhere else in Norway. The summit of the ridge commands a fine view, down a valley, of many small lakes. After this bogs prevail—very soft bogs, and small stagnant pools in all the many hollows of a mossy field which appears to be but recently thawed from its winter layer of snow. This style of country continues to the Totak Vand, which is a lake of considerable dimensions, some fifteen miles long, and from one to six miles wide. With much difficulty I obtained a boat. Being quite beyond the region of regulated tariffs or posting, or any kind of travelling, I had to hire a boat used by the farmer for his personal transport only. He was evidently doubtful whether I was asking him to row me across as a gratuitous favour, or whether

such a rough-looking fellow as myself could be induced to pay a trifle. After a preliminary scrutiny, he accordingly asked me how much I would pay him. I offered him a mark (the distance is about four or five English miles), which he accepted eagerly, and with evident astonishment at the amount.

The scenery on this lake is not remarkable. There are several farms dotted about the slope of the mountain forming the shore on which I landed. It is marked Gaardsfjord on the map. I tried at several houses, and found them all uninhabited and locked up; but there were people working in some of the fields, and they directed me to the best farmhouse of the district. I arrived there just as the housemen were returning; and on asking them whether I could have a bed, they told me that the "huusbond" (which, literally translated, means *house-master*, and from which, of course, our word husband is derived) was not yet returned. I waited accordingly; and in the meantime these housemen, or farm-labourers, amused themselves with horse-racing of a remarkably break-neck, steeple-chase character. They seized the bare-backed horses by the mane, and throwing themselves upon them commenced beating, and kicking, and howling at the beasts; which, evidently accustomed to the sport, and taking as much interest in it as their riders, started off at a scrambling, furious gallop over the cultivated patches, the bare rock, loose stones, and boggy hollows of the mountain side, up hills or down hills of any inclination, apparently intent upon breaking their own knees and their

riders' skulls at every step; but they did neither while I was looking on.

The relation of these *housemen*, or farm-labourers, in Norway, to the *bonder*, or freehold peasant farmer, is peculiar and interesting. They hold cottages and patches of land, generally sufficient to support two cows and some sheep, and to grow sufficient rye, barley, or oats for the consumption of the family. These sub-farms, as they may be called, are usually situated on the skirts of the bonder's farm, and are held under him at a fixed rent for a term of two lives—that of the houseman and his widow. The houseman is under an obligation of furnishing a certain number of days' work on the bonder's farm, at a fixed rate of wages: usually about threepence or fourpence per day, with victuals. The houseman can give up his land and remove, on giving six months' notice, and in such case is entitled to the value of house, buildings, &c., he has erected at his own expense; but the landlord cannot remove him, or his widow, so long as the stipulated services are rendered and the rent paid. The unmarried sons and daughters of the housemen are usually employed as day labourers, on the main farm or that of their parents. The eldest son of a houseman commonly succeeds his father by a sort of customary inheritance, which in some districts is so usual as to amount to a sort of tenant-right. A labourer is not considered in a condition to marry respectably until he has obtained a houseman's situation and allotment; and the pastor of the parish commonly refuses to marry a couple that is

not thus provided. As the supply of labour is fully up to the demand, and a vacancy for a houseman but seldom occurs, a considerable check is thus put upon early marriages; but at the same time a great amount of illegitimacy is also consequent. By Norwegian law, illegitimate children become legitimate by the subsequent marriage of their parents.

The farms of the bonders seldom change hands; they pass from father to son, through many generations, and are usually not more than large enough to provide for the wants of the family. It is but rarely that one can distinguish the bonder from his housemen by any difference of dress or manner. They usually take their meals together, and live on terms of apparent equality. The exceptions that I have seen to this were chiefly in the large farms of the Guldbrandsdal, and in the neighbourhood of Trondhjem, where there are thirty or forty labourers on one farm, and who are called to their meals by the tolling of a bell, hung for the purpose in a little belfry on the roof of the main building.

In the winter-time a greater degree of separation and inequality doubtless exists; for that is the great junketing period in Norway, especially in the extreme north, when Yule time is a long term of continual darkness. Then the farmers pay long visits to their neighbours, half-a-dozen families stopping at one farm; and the host and his family, joining the guests, start in procession over the snow to the house of one of his visitors, then to another, and so on till the round is completed, and each has been a host and guest to all in turn.

Dancing is the favourite amusement at these gatherings, and the polka, or "polsk," as they call it, the favourite dance. It was one of the common dances of Norway long before its introduction into England. I have heard some very animated accounts of these merry-makings, the remembrance of which evidently lasts through the summer; and if I may judge by the blushes and laughter that have replied to my inquiries, there is quite as much love-making at these "Yulekiks" as at the saeters in summer-time.

I have already alluded to the length of time that some of these bonder estates continue in one family. Mr. Laing quotes some interesting instances of this. Hrolf Blakar, of Blakar, in Lom parish, "preserves a head-piece or helmet complete, with an opening only for the eyes, and parts of a coat of mail, a long sword, and other articles of his ancestors; and a writing of King Hakon Magnussen the younger, who lodged a night in Blakar Gaard, in the fourteenth year of his reign, anno 1364." *

In many instances the title-deeds by which the existing families hold their estates are written in a dead language, the old Norsk, or Icelandic.

Many of the relations of Rolf Ganger, the conqueror of Normandy, and the ancestor of our Norman line of kings, are still represented by their descendants, who are peasant proprietors in Norway and Iceland. If the royal families of Europe, and our aristocratic families whose ancestors "came over with the Conqueror,"

* Laing's "Residence in Norway," p. 260.

could trace their lineage far enough, they would find the farms of their ancestors among the "gaards" of Norway, with nearly the same boundaries as they had a thousand years ago; and in many instances the present bonder would be the direct descendant of the elder son of the common ancestor, while the prince or nobleman would have descended from a younger son: for then, as now, when the farms were too small for subdivision, the elder sons inherited them intact, while the younger went to seek their fortunes on the seas and in distant lands. Then they manned the vessels of the terrible sea-kings, and settled on the shores of England, Scotland, France, Spain, Portugal, and even of the Mediterranean; besides colonizing Greenland and the shores of the unknown Western world, which they called Vinland. Now they help to man the ships of the British and American navy and merchant service, and are among the most successful agricultural emigrants to that New World which their ancestors discovered.

The proud beauty I met walking through the valley of the Otta in the parish of Lom, and so near to the farm of Blakar where the king slept, may be as nearly related to some of our proudest Norman families as her Norman features and bearing indicate; but hers would be far purer Norman blood than theirs, just as her face and figure were finer, and more typical of that style of beauty, than any I have seen among our nobility.

After waiting and watching the horse-racing for above half an hour, the bonder, or possible cousin of half-a-dozen kings, approached. He was informed of my

requirements, bade me welcome, supplied me with fladbröd and a bowl of butter, and then joined the group who were dipping their spoons into a pile of "Roman cement" dabbed down upon a board. On only one occasion have I been asked to partake of the cement, though I have usually found that it is the chief article of food. I suspect that fladbröd and smöer is considered more of a delicacy; especially as I have sometimes seen the bonder and his wife sitting apart and partaking of these.

While wandering about in search of a lodging I saw several very remarkably carved cottages, some of them most elaborate. I made a sketch of the front of one of them, an engraving from which will be seen on the title-page. They are all of that general top-heavy design, but vary considerably in detail; they are very old, and not used as residences, but for the storing of hay: the hay is put in at the door of the upper story, and taken out from the lower. Most of the houses hereabouts have some kind of carving about them, but those devoted to human residence have the smallest amount of such outside decoration.

I slept in a comfortable straw bed in the state apartment upstairs, the panels of which were decorated with paintings of cities in gaudy colours.

My next destination was across a roadless country to the Mjös Vand, and from thence to Holvik, situated at the easternmost end of this lake, and at the mouth of the valley through which flows the river that connects the two lakes of the Mjös Vand and the Tin Sjöen. This river, encountering a precipice on its way, pitches

over it, and forms the Riukan Foss, the great rival of the Voring Foss.

The Mjös Vand has a forked shape, and Holvik is at the extremity of the farthest prong; the track marked on the map sweeps round the nearest, but I was told that by going to a place called Synderland, I might cross this part of the lake in a boat, and save some miles thereby. I made for it accordingly, steering by compass over many miles of most detestable bog, alarmingly soft at some parts, and ankle-deep at the best. My boots had stout cloth tops, firmly laced up the middle; any sort of shoe would have been inevitably left behind, and even a tight-fitting Wellington boot might have been drawn off, for at every step a great muscular effort was required to drag the foot out of its black muddy peat encasement. I sank knee-deep several times, and a shuddering cold sweat oozed out of every pore on each occasion. Nothing is more horrible to my imagination than the idea of being smothered in a bog; it is a nasty, dirty, disgusting, undignified, and Quilpish death: a quicksand must be bad enough, but that is more cleanly. I had rather be masticated alive, feet first, by any imaginable slow-feeding wild beast, than be smothered in a bog. I am not quite certain whether there do exist any bogs soft and deep enough for a man to sink into and be buried perpendicularly; but if such things are possible, they surely may be found in this district. I saw several patches with a smooth watery surface, and a decided pool-like character. They had been pools of water, since filled up

with moss, and having well-defined boundaries; so that I could stand upon the brink, and probe them with my walking-stick, which failed to find the bottom. I considered what would be the best to do, in case of stepping unexpectedly into such gulf, and determined that the best course would be to throw myself backwards immediately, then turn over, and scramble in the direction from whence I came. In the first place, there would be less danger of sinking when lying at one's length than when standing upright; for a certain weight, say 150 lbs., all concentrated on a small surface like that covered by the feet, would have far more penetrating power than the same weight spread over a large surface such as that of a perpendicular section of the body: thus, one might roll safely over a bog upon which it would be impossible to walk. The horrible helplessness of sticking in a bog arises from the effort required to pull the leg out of the close-filling hole, in the total absence of any fulcrum upon which to rest one foot while pulling up the other. The object of falling backwards rather than forwards would be, of course, to make way towards the ground of known solidity: that which had been just walked over and thereby proved; while to go forward would probably be progression from bad to worse.

It is always desirable when placed in any position of *possible* danger to suppose the occurrence of the danger, and carefully consider the steps to be taken in such an event; and if the risk is considerable, every step in the predetermined effort for escape should, as far as prac-

ticable, be continually rehearsed. By such means, presence of mind may be acquired as an art. If passengers of an emigrant, or any other ship, on a long voyage, were put through a course of daily drill, by which, on the signal of danger being given, each should mechanically run to his proper place, in readiness to take his turn in getting into the boat pre-assigned to him, the terrible confusion, the overcrowding and sinking of the first boat, and most of the fatal results of blind terror, so apt to prevail on such occasions, might be prevented; for though there are but very few who are capable in the moment of extreme peril of thinking calmly upon what is best to be done, most people are capable of doing what is best if they know what that is,—more especially if they have had some practice in the doing of it.

On arriving at Synderland, I found several houses, but no inhabitants; they were all absent at the saeters, or "*engs*." These latter are distant pasturages, usually on high, flat ground: small table-lands. They differ from the saeters, inasmuch as the grass is mowed and made into hay at the engs, while the saeter pasturages are rocky regions, where mowing with a scythe or sickle would be impossible; and therefore the grass is cut by the teeth of the cows and goats, and harvested in the form of cheese. Mr. Laing very ingeniously supposes that the name of England is derived from these, as the old sea-kings who visited our shores used the land as "engs," or detached supplementary farms; and thus it was their land of engs, or England. I passed over several engs on my way this morning:

they were oases of thin brown grass, amidst the desert of bog; the grass itself growing on a boggy foundation. The top of this grass is mowed with a small sickle-like scythe, and stored in wooden houses, built for the purpose on the spot. These are easily mistaken for human residences, some being as large as the farmhouses, and even better looking outside. The people live a gipsy sort of life during this harvest, as the engs in some districts are many miles from the farms. I saw some picturesque groups taking their meal of cement, round fires surmounted by wooden tripods; a great black caldron, suitable for a Macbeth stage property, hanging by a stout black chain from the tripod. At night the harvesters on the eng all tumble pell-mell into the hay-barns to sleep.

As I depended upon finding a ferry at Synderland, its uninhabited condition was rather awkward. Finding nobody to help me, I endeavoured to help myself, by coasting along the lake in search of a boat. At last I found one; but it was on the opposite side, and the lake being above a mile wide, I called in vain for some one to bring it over. After much hesitation as to whether I should swim across or walk round, I determined upon the latter, and proceeded accordingly for several miles over villanous ground, consisting of soft bogs, variegated with boulders. Being unable to reach Holvik till the next morning, and by no means willing to attempt such bogs at night, I stopped at a place called Bospen, situated on the slope of a hill rising from the boggy wilderness.

The effect upon the feet of such a day's bog walking is rather curious. The mud finds its way into the boots, in spite of every kind of lacing; it surrounds the foot, and forms a kind of mud poultice, which softens and whitens the skin, and produces a numbness or partial insensibility, such as an ordinary bread poultice would, if applied for a similar length of time.

CHAPTER XVII.

A Tellemark interior—"Juno" and "Vesta"—Romance and dirt—Sleeping in the hay—Many bedfellows of the human species and many more of the lower animals—The irritating powers of ants—Characteristic scenery of the Tellemark—Facilities for extensive and profitable drainage—An old man and his old boat—The legend of the Marie Stige—Crossing the Marie Stige—The Riukan Foss from the Marie Stige—The height of the Riukan Foss—An imaginary rescue—The Dale Station.

THE farm at which I stopped was a miserable place; the common room or kitchen being very small and low, and curiously dirty, the windows nearly all broken and pasted with paper. It was crowded with men and women, all of them nearly as dirty as the floor. As, I entered the room in semi-darkness, I gradually became conscious of the existence of two luminous bodies, shining in a gloomy recess close by me; and, on growing accustomed to the darkness, I perceived, first that they were two human eyes, then that they belonged to a woman, and finally that the woman was young and of very remarkable appearance. The eyes before referred to were pale blue, and the largest human eyes I had ever seen; the woman's nose was short and wide, with great distended nostrils, and yet not ugly; her hair salmon-coloured, and very thick and long: a heap of it was

gathered on the top of her forehead, and in it was stuck a large round silver brooch. The brooch in her hair was partly occupied in securing a handkerchief of many colours which covered the top of her head and hung loosely backward and on each side. Another brooch of similar dimensions shielded her breast. Her whole aspect was remarkably bold and almost ferocious; somewhat boy-like, and decidedly handsome in its way. The brooch and high bunch of hair above her forehead added greatly to the effect. Her portrait would make a good picture of one of the old Scandinavian goddesses; but as I do not remember the name of any one equally suitable, I shall call her "Juno," on account of her ox-like eyes. Another girl—possibly her sister, though very unlike her in expression, being very meek, gentle, and rather pretty—sat at the fireside: she may be called "Vesta." I fell into a romantic state of mind, and its being too dark to see the dirt upon their faces, I imagined them both very beautiful, and built up rustic love stories, of which they were the heroines; until Vesta, reaching from the beam a short pipe, lighted it, as I supposed, for her father; but, to my horror, and the total destruction of all the little novels, she commenced smoking it herself, and then handed it to Juno, who took her turn and handed it back again. They spat noisily into the fire, and altogether behaved in the most unromantic manner imaginable, for two girls of about fifteen and eighteen years of age. After long and patient waiting, I asked Juno whether I could be provided with any supper. She answered abruptly,

"No;" but an old man, who, being the dirtiest of all, was, I suppose, the master, brought me some fladbröd and drab-coloured smöer.

There were two very dirty beds in the room; and these were evidently all that existed upon the establishment, although eighteen persons besides myself were crowded in this small, low kitchen. The bonder asked whether I would sleep in the hay; to which inquiry I joyfully answered "Yes;" for having already felt a procession of fleas moving up my legs, I had gloomy forebodings of the animated condition of the clay-coloured bedding.

It was now quite dark, and the man conducted me across a field to the door of a large building. I entered it, and, scrambling over a great depth of hay, commenced arranging some sort of bed, when I was startled by a loud laugh of decidedly soprano pitch, then by a voice and another voice answering it. The laughter and voices were those of Juno and Vesta in alarming proximity to me; presently I heard other voices, and then I found that I was one of a large company of bedfellows of both sexes, all sleeping together in the hay. It was a cloudy night and very dark, so that I can testify nothing regarding the arrangements for separating the sexes. For above an hour there was a continual talking, with occasional squeaking, followed by much laughter; then the number of talkers gradually diminished till only a couple or so remained, and finally nothing but snoring was to be heard. During all this time I was endeavouring to make myself comfortable, and was much surprised at

finding that all my endeavours were utter failures; for after my experiences of rough lodging and nights out of doors, I expected to find a bed on the new-mown hay quite a luxury: but I found it most miserable.

Some people can sleep anywhere provided they are warm, and on anything provided it is soft; for my own part I can endure exposure, cold, and a hard resting-place, but to be half buried in odorous material, and perpetually tickled with straws, irritates me beyond endurance. In order to understand what it is to sleep in such a place, it must be remembered that the hay in this boggy country is by no means composed exclusively of grass: about half of it consists of dried leaves and stalks of various wild plants, including a great proportion of thistles; moreover, it is not carefully stacked and pressed down, but pitched anyhow into these receptacles, and falls on the floor and rises to the ceiling in a state of promiscuous entanglement: it was about ten feet deep, and very loose, in the region of my night's burial-place. To tell how the stalks and blades and thistle-leaves got down my neck, and up my sleeves, and ferreted all over me, would require a whole chapter. Nor were these representatives of the vegetable kingdom my only tormentors, for the entomology of all Scandinavia seemed to be illustrated by the animated specimens that crawled all over me. Among these the ants predominated. I have a great respect for these little animals: their social institutions, their industry and public spirit, always awaken in my mind feelings of the deepest interest; but in spite of all this, they tickle most horribly, for their very active legs

are extremely thin, cased in a shell of metallic hardness, and their toe claws are wondrously sharp.

There is an important acid, called formic acid, from *formica*, the Latin name for ants; the old chemists obtained it by bruising unhappy ants in a mortar, and distilling their remains. When ants are irritated, they eject this acid, and so do the leaves of the stinging-nettle; from which it may also be obtained by distillation. Chloroform receives its name from having the same composition as formic acid, but with chlorine substituting the oxygen. It is supposed by some that the perspiration of ants consists of this acid, and thus their reputed aversion to walk over chalk has been explained; the theory being that the formic acid causes the chalk to effervesce, and suffocates the ant with the evolved carbonic acid. These facts and speculations surround the ant with an additional interest to the chemist in his laboratory, but by no means increase its desirableness as a bed-fellow under circumstances calculated to irritate the worthy little animal. That they were seriously irritated in this haybarn there can be no doubt; they had been gathered with the hay, and carried far from their native communities, and were wandering fretfully among the labyrinth of dried vegetation in search of some solid ground by which they might reach their homes. My body was such a landing-place, and once reached, their enterprising disposition led them to explore the island by crawling under my clothes and all about my skin. If I had ever doubted the theory of their irritant acid perspiration, this night's experience must have converted

me; for upon no other supposition can I account for their special powers of torture.

Besides these, there were many other creatures with many legs wandering with like uneasiness in search of their lost homes, their eggs, and maggot-babes; and as I fell into short beginnings of feverish slumbers, every blade of grass seemed to be a centipede or a wriggling worm, the dried leaves became crawling beetles, and every bit of stick or twig assumed the changing form of some intolerable creeping beast.

I might have borne all this much better had I adopted the night-dress (that of Paradise) before alluded to (page 245), which seems to be usually worn when sleeping thus; for the irritation was all exaggerated by the vegetable fragments and the industrious animals being confined between the clothes and the skin. But there were many difficulties in the way of adopting this costume: first of all it was doubtful whether I should ever find my clothes again if once I parted with them; then there was the uncertainty as to whether any sort of fence existed between me and the proprietors of the female voices: the possibility of coming in positive contact with Juno and Vesta in the course of my blind struggles with the hay, or of sleeping till daylight, and then having to hunt for my clothes in their presence, were fearful subjects of apprehension to a man whose leading characteristic is extreme modesty.

Besides all this, I was not aware, and am not now, whether the custom of sleeping in the hay in Adam's costume is extended to these communities of sleepers,

for the sleeper whom I startled on my way to Lunden was apparently solitary. I might have ascertained all this had my powers of endurance been greater, but I was forced to yield before daylight. I scrambled towards the hole by which I entered, took off my clothes in the adjoining field, and shook off the inner lining of tormentors.

On returning, I found that the bonder had risen, and general activity was commencing; and I was much surprised at finding him busy in preparing for me a breakfast of trout and coffee, and showing a degree of attention which contrasted strongly with the apathy of the night before, when it seemed doubtful whether I should get any food at all. This change was probably produced by my showing some money, and offering payment after supper; though he refused it, and told me to pay next morning. He, his housemen, and Juno and Vesta, all evidently thought me a houseless wanderer who had come to beg for food and shelter; the idea of a tourist being of course utterly unknown to them, as no one within the memory of man had ever travelled for amusement thereabouts, so far away from the regions of roads or any sort of highway. When, after breakfast, I paid the farmer 20 skillings (about 9*d.*), he looked at the money with astonishment, exclaimed that it was "enogh," with a pronunciation that would pass for good lowland Scotch; he then shook hands in token of thanks, and insisted on walking with me to the top of the neighbouring hill to point out the way. At Gaardsfiord, where I stopped the previous night, I gave the

host one mark, which he returned to me, saying it was "*for meget,*" too much, and I had much difficulty in inducing him to accept it.

The hill that I ascended with mine host is the first of a series, and my route for several miles was an almost continuous ascent—a welcome change after the previous bogs. The highest point attained commands a fine panorama of an immense extent of country, consisting for the most part of rolling hills, with boggy and pool-filled hollows and flats between. This seems to be the prevailing character of the Tellemark country, and may have considerable influence in producing some of the peculiarities of the people. I have no doubt that most of these boggy regions might easily be drained, and thereby converted into fertile plains. The drainage of a flat, boggy country nearly on the sea-level is a very difficult problem; but an elevated plain may frequently be well drained by cutting a single trench. All that is required is to find the lowest part of the boundary of the elevated marshy land which is situated near to a descending valley, and then to cut a deep channel, establishing a communication between the marsh and the valley; this would drain most of the land lying above the level of the bottom of the cutting. I am satisfied that great regions hereabouts might be thus reclaimed at a very small expense.

On descending, I came upon a repetition of bogs and small lakes, which continued, with occasional alternations of low ridges, until I reached the north-eastern fork of the Mjös Vand. My map is very incorrect

here, for though I steered considerably eastward of the direction it indicated, I found myself much too far north, and had an hour's walk to the eastward along the steep and rugged banks of the lake, before I reached its easternmost extremity, from which the river forming the Riukan Foss issues. This lake is very shallow, and has apparently a rich alluvial bottom. Some thousands of acres of land might be gained by simply lowering the bed of the river Maan, forming its outlet. This might be very easily done, as the river makes some rapid descents very near to the lake, which is of great extent, and its level limits the natural drainage of a vast amount of surrounding country. The simple lowering of this lake would alone drain many of the surrounding bogs; but if, in addition to the lowering of the Mjös Vand, the principal channels of communication between it and these boggy regions were cut deeper, a vast region now a noxious, boggy waste, might be rendered as valuable as any of the existing land at this latitude and elevation: moreover, the climate would be greatly improved by the reclamation of so much bog and so great a surface of stagnant pools.

On reaching the head of the river, I found no track down the valley, as I expected, and no bridge or any other visible means of crossing to the opposite side, on which a track is marked on the map. I scrambled onward through bushes, and over rocks, till I came to a perplexing obstacle—the edge of a small precipice, a wall of rock about fifteen feet high; rather too deep to jump or drop down, and not sufficient to turn one

back without severe humiliation. I walked along it for some distance; and finding that it grew worse as I went further, I returned to the most promising point, and stood for some time in doubt whether to hang as far down as possible, and then drop, or to make a long journey round—until at last, in a moment of courageous determination, I pitched my knapsack down, so as to be compelled to follow. There is a steep slope, covered with bushy plants, at the foot of the rock-wall, and the fate of my knapsack was far from encouraging, for it rolled, and bounded, and bumped over and over a terrible distance down this slope; and when I dropped I followed its example to a small extent, but with no other damage than torn clothes and some scratches.

After scrambling on still farther, I came opposite a saeter situated on a slope on the other side of the river; and at the foot of the slope was something that appeared like a boat. I shouted loudly and long, and was just about giving up hopes of a ferry, when an old man, bent nearly double, emerged from the saeter, and moved slowly down the hill; he then drew the boat to the bank, and spent a considerable time in baling water from it. At last he stepped into it and rowed across; first pulling with the oars, and then, while the boat moved on by the impulse thus given, baling out water —then another pull, and more bowls of water over the side,—and so on until he reached the shore, with the boat nearly filled. The boat was a curiosity, being made simply of two squared pieces of the stump of a tree, forming the stem and stern; to these ends some deal boards

were nailed, and thus the bottom and sides were formed: it was a sort of rude packing-case, with thick ends, and no top; and some lumps of stone were placed in the bottom for ballast. The old man got out, and we hauled the box ashore, to let the water run out of its sides; then I threw out two big stones that ballasted one end, and took their place, baling out the water as the old man rowed. When I remarked that the boat would not last much longer, he smiled; said that it would last as long as he should himself, and patting its side, told me that he made it fifteen years ago: he seemed to have a strong affection for it, and I could not help fancying that he intended it to be his coffin.

After crossing, I walked up to the saeter, answered a great many questions from the curious inhabitants, and then followed a track which ascends to a great height above the river and commands some fine views. Many tourists visit the Riukan Foss, but they come from the other side, and very few ascend to this part of the valley. After passing another saeter, where I was supplied with milk in a kind of trough shaped like a London butcher's tray, and demanding much skilful management to drink out of the corner without overwhelming oneself, I arrived at the farm near to the Riukan Foss, which was the residence of Marie, the heroine of the Marie Stige.* This farm is situated on the side of a mountain, which blocks up the valley,

* "*Stige*" is the Dansk and Norsk for *ladder*, and placing the article *en* at the end of the word, as is usual, it becomes Stigen, *the* ladder, hence the local name "Marie Stigen," the Mary's ladder, which most

The ordinary track by which the lower part of the valley may be reached, ascends about a thousand feet over the ridge of this mountain, and then, of course, a corresponding descent has to be made. But the river! How does that find its way down the valley? There is a deep cleft, a great chasm, more than a thousand (some say two thousand) feet in depth. Ages had passed away, and nobody had dreamed of any other way to reach the lower valley than that over the mountain; but Marie, whose lover lived below, had heard of his rival's plot to waylay him as he came by the track over the ridge to visit her, so she tried the dreadful precipice, and found that by clinging with fingers and toes to the little ledges of the rock, she could pass in a direct line along the face of it. Thus she warned her lover of his danger, and enabled him to meet her secretly and safely, by traversing the giddy path she had discovered; and the lovers evaded—as lovers always do—both the cruel father and his accomplice, the wealthy rival. By this path they met as usual, until at last detected; and then Ejstein Halfoordsen, the lover, was prevailed upon to fly, in order to escape new plots against his life. In the course of years the father died, the rival ceased to persecute, and Ejstein returned with fame and wealth. He came by the shortest way, Marie saw him coming, and called his name aloud; he raised his arms and waved his hands

English writers have misunderstood and Germanized into "Marie Stein," or Mary's Rock. Others spell it "Marie Stegen," which, translated, signifies the Mary's *fry*, or Mary's *roast meat*.

as a signal of recognition, and by doing so was overbalanced and fell. She watched his falling body till it disappeared in the foam of the Riukan Foss; when the dark veil of madness fell over her mind, and fulfilled its beneficent intent by shutting out a knowledge too horrible for endurance.

A little girl from the farm guided me to the edge of the precipice, from which a distant view of the fall is obtained. From this point it is much like the Voring Foss, but can be better seen. My guide then showed me the beginning of the track leading to the Marie Stige, telling me that she was forbidden from going to the Marie Stige itself. I gave her 4 skillings, which she protested was too much, at the same time offering to return two, and it was with great difficulty that I induced her to keep the whole amount of rather less than twopence.

I then proceeded along what I supposed to be the Marie Stige, a ledge of rock trodden with footsteps, varying from six inches to a foot in width, with a sloping wall of rock above and the chasm below; this continued until I came to a part where there are two tracks, one apparently leading over the hill, the other direct to the midst of the perpendicular wall of the precipice (which is seen a little farther on rising to a fearful height overhead) and proceeding downwards to the gulf below, with an unbroken smoothness that looks utterly hopeless: but I determined to go on as long as there was any vestige of a track. Following thus the marks of footsteps, I came out at last not upon the edge, but

upon the face of the precipice formed by the splitting down of the barrier mountain before referred to; it was a giddy path, but I kept along it, placing my feet upon the worn ledges and clinging to other ledges above, until I came to a tree which grew upon a ledge similar to those I had stepped upon, but much wider, and which seemed to be the end of the track I was following. Some initials cut upon the tree, as triumphant indications of the carver's exploit in reaching it, rather confirmed the notion that I had only followed a track leading to this as a station for viewing the waterfall and the whole of the great chasm, which are well displayed from this point.

Concluding that such was the case, and that the other ascending track leads to the Marie Stige, I was about to return, when I saw far away below me, standing on a large table of rock, five student-looking young men, with a peasant, who appeared to be their guide; they hailed me, and I returned their salutation, but could not hear what they said. Then the peasant took off his shoes, left them, and presently re-appeared moving along the face of the precipice like a fly on a wall. His means of adhesion were totally unintelligible from the distance, but as he approached I perceived that he was clinging by fingers and toes to narrow ledges of rock from one to four or five inches wide. At last he reached me, and asked me whether I would accompany him back, which I consented to do; though it appeared rather a dangerous exploit: I found, however, that it was much easier than it appeared to be from the distance. The rock has a perpendicular lamination (and

doubtless a corresponding cleavage to that to which the formation of the chasm is due); the abrupt terminations of these laminæ form ledges, which though very narrow are perfectly firm and safe, affording a reliable foot-hold, without the slightest tendency to slipperyness; besides these there is an abundance of similar ledges, affording firm finger-hold, which, though but an inch wide, give a most comfortable assurance of safety to the climber, who, bending the hands claw-fashion, clings to them with the finger-ends. I would rather, under such circumstances, have a firm two-inch foot ledge, and one inch of such finger-hold, than an eighteen-inch pathway with nothing for the hands. At about half way I stopped to contemplate the scene, which is magnificent, and its grandeur is heightened by the peculiar position from which it is seen.

Imagine yourself "holding on by your eyelids," as the sailors have it, in the manner just described, to the face of a precipice which rises overhead some 500 or 600 feet; the upper part being, in fact, quite out of sight, without leaning forward, which would, of course, involve the fate of Ejstein; then, with great care, and some fear and trembling, you turn yourself round, gradually placing your heels on the former position of your toes, removing your hands one at a time from their clutching-places, and finding a lower ledge upon which to rest the wrist end or heel of the hand. Having anchored yourself thus, and keeping your back quite flat against the rock (as any leaning forward would be fatal), you look in the direction of the

upper part of the valley, and see far below and far away a dark chasm partly hidden by branches of trees; through this the river flows, and as it comes nearer reaches a wider opening of the gorge, advancing towards the edge of a precipice, over which it rolls towards a gully of its own cutting, and then pitches down an unknown depth: for the mass of falling water plunges into a white cloud that hides the bottom of the dark abyss, and rises up high into the sunshine. This is the perpetual spray, the reeking, or "*riukan*," from which the name of the fall is derived. You may, however, estimate the depth, for looking straight down the gray wall to which you are clinging, you see that it terminates in dark, quiet water. This is the same that a few minutes since was thundering and tearing down so furiously, and partly rising again to form the ever-hanging, though ever-falling, cloud of waterdrops.

Murray says that the "Estimates of the height of the Riukan Foss are various; the most probable is about 900 feet." This, I think, is an over-estimate: 500 feet appears to me much nearer the truth. The part of the wall on which I halted is fully as much above the top of the fall as the whole height of the fall itself. According to Murray's estimate, therefore, there was 1,800 feet of precipice below; according to my own, about 1,000 and some 400 or 500 feet above. This wall is not absolutely perpendicular, but is within a very few degrees of it.

On arriving at the end of the Marie Stige, and landing upon the platform of rock where the five

tourists stood, I was congratulated by them all on my escape; but did not quite understand the meaning of these earnest congratulations. One of them, an Anglo-Portuguese South-American merchant, explained in English that, seeing me halting in that terrible situation (by the tree before mentioned), they concluded that I had got so far and was unable to advance or retreat, and were under the impression that the accident of their arrival with the guide had been the means of saving my life. They were rather disappointed when I told them that I was in no danger whatever, and had no idea of danger; that I could have retreated with perfect ease, but should not have ventured forward had not their guide, by his example, demonstrated the possibility of so doing, which otherwise was by no means evident. They had really been terrified, and when, in order to convince them that there was no danger, I proposed to recross with them, the Portuguese exclaimed that he would not do so for a vast amount; and all the rest concurred. I can easily understand that, viewed from this position, where the ledges are quite invisible, and both the height above and depth below, fairly seen, it must be a somewhat thrilling sight to witness the crossing of the Marie Stige—far more so than to do it.

This platform of rock affords by far the best view of the fall, and those who come from below have no occasion to cross the Marie Stige, except for its own sake. The quantity of falling water is much greater than at the Voring Foss, but the height does not appear to me

so great. Much of the effect of the quantity of water is lost, on account of the narrowness of the chasm down which it falls.

After lingering till the sun had set, I walked on, in company with the Portuguese and his four Norwegian companions, to the farm below, where they remained. This farm is said to have been the residence of Marie's lover, and many tourists who walk up the rugged way from it to the platform of rock from which the best view of the fall is obtained, imagine that they have thereby crossed the Marie Stige. I walked on by moonlight through a fine valley, passing many cascades, until I reached Dale, at a late hour. This is a good station, and the regular halting-place for visitors to the Riukan Foss.

CHAPTER XVIII.

The Tin Sjoen — Tellemark costume — A sociable squirrel — Pine forests—Dirt, rags, and finery—A few facts brought forward to indicate that tourists with weak stomachs should not visit the Tellemark — Solid chairs — Breakfast with the bonder — An investigation of the contents of my knapsack—Sudden change in the social aspect of the country—Wine-shops, commerce, and mining—Kongsberg—A public-house and Sunday amusement—The long town of Drammen—My reception by the hotel-keepers of Drammen—Home-like scenery and its associations—Gaiety of Christiania — Family affinity between ourselves and the Norwegians and Danes—Back to London.

The next morning I walked down the valley to Mael, on the Lake of Tin Sjoen, then took a boat to Haakenaes, where there is a good station, and from thence by another boat I proceeded to Graver, ten miles further down the lake. The boatmen were two fine-looking fellows, tall, and powerfully built, and with the large and strongly-marked features that characterize the peasants of the Tellemark. Their short jackets and waistcoats were as usual thickly covered with silver buttons, and at the knees of their knee-breeches there were as many more buttons as could be placed there. The lake is rather a fine one, bounded by high wooded hills and fertile little bays, with farms upon them in every bend of the shore. Wild waterfowl abound here, and we were much amused with a squirrel that followed the

boat for a long distance, as we rowed close to the other shore.

On landing at Graver, I inquired for the track leading to Kongsberg, by Bolkesjo; a well-defined path was shown to me, and I was recommended to stop at the farm of Lier, which, according to my informant, would afford the most comfortable quarters in the district. There is much fertile country, and some tolerably good farms in the neighbourhood of Graver.

The first part of my walk was amidst the rich scenery of fertile winding valleys, and then through silent forests of tall pines, with stems so large, so high and straight, and uniformly tapering, that Milton's lines,—

> "His spear, to equal which the tallest pine
> Hewn on Norwegian hills to be the mast
> Of some high admiral, were but a wand,"

haunted me continually as I walked along. After eight or ten miles of such forests, the track passes over some curious glacier ground,—great plains of smooth, flag-like rock, with very slight inclination, and remarkably deep grovings. Finally, I reached Lier, which is situated on the flank of a curiously shaped mountain, overlooking a melancholy lake. I should never have found it, had I not overtaken three dirty men who were going out a-fishing, and with whom I walked for about an hour. They pointed out the farm, which is not visible from the track, and is situated in a region so hopelessly rocky that I could scarcely believe any agriculture possible: I should not have thought of looking for a house thereabouts. On reaching it, I

found, as usual, that there was nobody at home, but saw some people in the distance, and therefore went in at the open door, and sat down till they came.

The housemen and women came first, then the master; all of them incredibly dirty—dirty as Greeks, and ornamented with a profusion of silver brooches and other silver and gilded silver trinkets. The master, as usual in the Tellemark, was the dirtiest, and wore the greatest amount of jewellery. On his shirt front were three huge circular brooches, that touched each other, for want of space between them; the neck was fastened with silver shirt-links, with chains hanging from them. There were three rows of silver buttons on his immeasurably short waistcoat, and three rows more on the sides of each knee, and all were brightly polished; but his stockings were full of holes, and the garments upon which the silver was displayed were miserably ragged. It appears here to be the general custom to wash and shave once a week, so that the bristles and the dirt accumulate on their faces simultaneously, and are both pared off with a razor on Sunday mornings: it being Friday evening, and hot weather, these decorations had nearly reached their weekly maximum.

My supper consisted of dirty fladbröd, good butter, and sour milk; this last the master brought me in a bowl, quite filled: he held the bowl with one hand, and his thumb was immersed in the sour milk, which exercised its solvent powers upon the film of dirt that overlaid his skin, so that by the time he placed

the bowl before me, his immersed thumb was surrounded by an aura, or dark halo of dirt particles, suspended in the beverage. By skilful management, drinking from the opposite side of the bowl, and avoiding any agitation of its contents, I contrived to drink some of the milk without reaching the portion thus beclouded.

The room had the usual dirty floor and pasted paper windows; half a dozen people were eating cement, but there was no Juno or Vesta here. Besides the kitchen, or common room, there was a little second room, in which I slept in a very dirty bed, and breathed a cheesy atmosphere, produced by two very large tubs filled with stale milk in a state of putrescent, caseous fermentation, and covered with a thick mouldy film, from which arose an intensely sour odour of rotten cheese. In this room were two specimens of a curious chair, such as is occasionally met with in those parts of Norway where the largest pine-trees abound. They are made by simply cutting a log about three feet long from the thickest part of a large pine trunk; one side of one half of this log is adzed out to form a seat, the other side being left in the rough for the back, which is curved inside, and thus a solid seat, a block with a back, is formed.

When I arose the next morning, the housemen had all departed and were working in the fields, but the bonder and his wife were waiting at home to take breakfast with me. This was quite a state repast, consisting of coffee and rye-bread and butter. The loaf

of bread was new, and had apparently been prepared on purpose, or was possibly part of the family provision for Sunday.

After breakfast, my hat and stick were carefully examined, and such longing glances were cast upon the outside of my knapsack, that I felt morally compelled to exhibit its contents; which afforded an immense amount of delight. Small as it was, mine host and his wife evidently regarded it as a museum of wonders: the scarlet flannel shirt was an object of special admiration; the softness of the material, the brilliancy of the colour, the buttons and stitching, were all commented upon with the utmost enthusiasm, and they evidently considered me guilty of a great waste of splendour in wearing so brilliant a garment inside. Had it belonged to the bonder, he would certainly have worn it as an overcoat, and have covered it with all the silver brooches and buttons in his possession. If I had possessed another besides that on my back, I should have made him a present of it, and waited over Sunday to witness the result.

As a protection against the weather, and immersion in rivers, &c., I make up the contents of my knapsack into small parcels, rolled in oiled silk, and secured with an india-rubber ring. These rings interested the investigators immensely, and when I stretched one of them to its utmost and passed it over my head, the bonder threw up his hands, exclaiming, "O mine God fader!" "O mine God fader!" and repeated the exclamation every time I showed him a

new application of their wondrously expansive powers. When, at the conclusion of the show, I gave him two of these rings, he rushed off to show them to his housemen, and he evidently valued them above the artificial flies and fish-hooks. I should advise all tourists who propose penetrating the wilds of Norway to carry a few boxes of vulcanized india-rubber rings with them.

I walked on by Bolkesjo, which is a clean comfortable station near the boundary of the Tellemark. The beams of the room are elaborately decorated with scroll carvings and Latin inscriptions in relief; the letters very large, and painted alternately red and yellow on a green ground. A comfortable dinner was provided here. I intended to take a carriole to the next station, in order to have some experience of this mode of travelling before leaving Norway; but I was told that they could not fetch a horse in less than three or four hours, and therefore I travelled by my usual means of conveyance, along a good road and through a well-peopled country. I was much struck with the change in the appearance of the people and the condition of the houses that was evident immediately upon passing the boundary of the Tellemark. At Moen, I found a small but comfortable station, and enjoyed the luxury of sleeping in a clean, uninhabited bed.

On approaching Kongsberg next morning, I was rather surprised at passing some wine-shops; the first I had seen in Norway. In order to ascertain what sort of wine is popular here, I called for a glass at one of the shops, and was supplied with some cherry wine

strongly flavoured with the prussic acid from the kernels. The charge was two skillings per glass.

Kongsberg is a considerable town, with indications of commerce that are quite novel, after Norwegian country life; for, besides its mining industry, there is much trading in timber, as the logs and rafts in the river testify. Being Sunday, I could not visit the great silver mine; and having only just time enough to reach Christiania by the starting time of the packet, was unable to afford the two days' delay that such a visit would cost; therefore I pushed on to the next station, intending to take a carriole there, but found there was none: nor was there any food, but abundance of ale. It was, in fact, remarkably like an English beer-shop, and the people about were beer-shop customers such as mining districts usually supply.

At Hougsund, which is rather more than half way to Drammen, there is a very large station; quite a public-house, with a skittle-ground and tea-gardens attached, where a game nearly the same as American bowls, was being vigorously played by artizans in their Sunday clothes. There were other games, such as throwing a suspended ring upon a hook, &c., and there were many players, but I observed no indications of gambling; and though most of the players and the loungers, who were very numerous, were drinking ale, there was no drunkenness. This is evidently a favourite place of Sunday resort for the artizans of the vicinity. The reader must remember that I had left behind the wild district of Tellemark, the region of bog and mountain

and thinly scattered farms, and that I was now in the midst of a dense population and much business. Most of the company consisted of working men in their Sunday clothes, in which guise they look singularly like Scotchmen under similar circumstances. Like Scotchmen on Sunday, they dress all in black; like Scotch artizans on Sunday, they seem oppressed with a consciousness of being in full dress, and move about in a bashful, uneasy manner; and like Scotchmen, they can evidently take a great deal of ale without inconvenience; but they are unlike Scotchmen *in Scotland* on Sunday, in taking their Sunday amusements openly and without fear of the folk. Luther's notions of the Sabbath are fully carried out here; for while the people scrupulously abstain from following their daily labour, they make the Sunday a bright and cheerful holiday—going to church in the morning, taking country walks in the afternoon, and singing and dancing in the evening.

I had a dinner of broth and mutton, the broth prepared with barley precisely after the manner of Scotch broth, and then walked on to Drammen, meeting many people on the way, some on foot, others in carrioles and gigs, many fishing on the banks of the river, and several carrying guns; these, and the continual banging that I heard in the fields around, showed that shooting is a favourite sport in this neighbourhood. Among other provisions for amusement were some "öl vogns," or ale waggons, carts built for the purpose of carrying bottles of ale, and retailing them on the wayside. The two that I passed were besieged by

customers, and corkscrews were in great demand. There are several terraces in this valley of the river Drammen, but they are not so high above the level of the river as those of the northern valleys.

Drammen is a very long town, longer even than the "lang toun o' Kirkaldy." It has some fifteen thousand inhabitants; is about five miles long and nothing broad, being simply a row of houses on each side of a broad river. There are many handsome villas in the neighbourhood belonging to the rich timber-merchants; they are built of wood brightly painted, and have handsome gardens around them. There is no national costume in Drammen: round hats and ample skirts prevail among the women, and black dress coats and Panama hats are most common among the men. I heard many pianos and a good deal of singing in the houses, and passed some public rooms where there were many dancers. It was about sunset when I reached the commencement of Drammen, and quite dark by the time I had walked partly through it.

I was dismissed very cavalierly from the first hotel at which I applied. It was the chief hotel of the place, and possessed a waiter, who, with the natural instinct of his species, looked up and down me, estimated the value of my clothes, and then showed me the door. It is true that my boots were reduced to the last extremities of barely adhering to my feet; my trousers, which originally were of shepherd's plaid, had acquired a uniform tint, similar to that which distinguishes the garments of brickmakers and navvies; my coat, of the

same material, was in a similar condition, but not so decidedly bricky. Besides this, there were many mendings of my own, the stitches of which were large enough to be distinctly visible to the naked eye, and the colour of the thread was not exactly the same as the material it held together; my last clean collar was consumed, and my complexion was many shades darker and redder than that of a civilized Caucasian: still, I did not anticipate so unceremonious an expulsion, and might have been indignant had not my sense of the ludicrous prevailed.

Finding no other hotel or inn in the neighbourhood, I made inquiry of a passer-by, who proved to be a shoemaker, and a very civil fellow. He took me to the nearest inn, where, in order to conciliate the authorities, I ordered a bottle of ale before commencing my chief negotiations; but it was of no avail, my boots and trousers, wild beard and complexion, were too much for them, and I was politely told that the house was full. The shoemaker then conducted me to another house of apparently still smaller pretensions, where another bottle of ale and another application led to a like result. We then crossed the bridge—which, according to the shoemaker's belief, is the longest and finest bridge in the world—and boldly entered the second grand hotel of Drammen. I called for a bottle of ale and asked for the master: the latter came bearing the former; he spoke English fluently, and said at once that he perceived that I was a tourist who had been roughing it up the country. I told him how I had been turned

out of the other hotels as a rogue and vagabond; he laughed, and assured me that he, who was a man of the world and accustomed to Englishmen, could distinguish an English gentleman at a glance, whatever might be the state of his clothes; whereupon I called for another bottle of ale, and we all three hobnobbed together, then had more ale and an hour's gossip. The shoemaker would not stop to supper, and was only prevented by physical force from paying for all the ale, though he had already paid for one of the previous bottles.

The next morning after much walking I finally emerged from the long street into the country, which is very fertile and well cultivated. At the Gulbeck station I hired a carriole and horse to the next station, a distance of $1\frac{3}{8}$ Norsk mile, about ten English statute miles; the charge for which was 2 marks 6 skillings, or about 2*s.* in English money. The principal difficulty I encountered was in the disposal of my legs, which have to be somehow arranged between the front of the vehicle and the tail of the horse, either dangling or resting on the shafts. The chief excitement of carriole travelling is the running down the hills, which Norwegian ponies perform in a manner peculiar to themselves: the steeper the hill the greater the speed; the rougher the road and the larger the loose blocks of stones upon it, the greater is the sense of security enjoyed by the horse, and the more frolicsome are his movements. As there are no other springs than the elasticity of the shafts, the tourist may or may not, according to taste, participate in the animal's enthusiasm.

The scenery is very beautiful all the way between Drammen and Christiania. It has a smiling, home-like, English character. The wild mountains and the dreary fjelds, the snow-peaks and glaciers, bogs, boulders, torrents, and cascades, the vanishing foot-tracks and barriers of gray precipice, all seemed now to belong to a distant land and a past age of dreamy remembrance; while this common highway passing between rich fields, skirting small lakes with water-lilies on their surface, and crossing tranquil rivers that have bending willows overhanging from their grassy banks, was like the way home from some friend's house in the country, and set me longing for my books, my easy chair, some music, a clean collar, and civilization. These feelings were heightened as I approached Christiania, and passed numerous villas of considerable beauty; at one of the finest of which there was a grand party, with gaily-dressed ladies and gentlemen promenading on a terrace that overlooked an Italian garden with flower vases, statues, and fountains, all enlivened by the music of an excellent band.

Christiania appeared extravagantly gay and Paris-like: there were pleasure-boats sailing on the fiord in the neighbourhood of Oscar's Hall, the king's summer palace on the water-side; the Klinkenberg seemed filled with visitors; there was a grand concert in another place, the "Lust-salle;" the Walhalla Theatre was open, and there had been a performance there last night (Sunday); and everybody seemed to be brilliantly dressed and keeping holiday. Whether this was attri-

butable to the contrast with the Tellemark, or due to the fact that this is the gay season at Christiania, and the festival of Saint Monday, which is kept to some extent by the artizans of Norway, I cannot positively say; perhaps, all combined to give the city the altered aspect it presented to me.

I was greeted with a hearty welcome by mine host of the Hôtel du Nord, who knew exactly where I had been, how I had travelled, and almost everything concerning me. It appears that the station keepers have to make some sort of periodical report, of which the newspaper editors of Christiania avail themselves to chronicle the movements of the more illustrious tourists: my want of rank was fully compensated by the eccentricity of my mode of travelling.

On the next morning I left Christiania, and, sailing down the fiord by a steam-packet that called at many stations on the way, arrived at the mouth of the fiord and bade farewell to Norway. Then, passing through the Kattegat and Great Belt by the flat sandy shores of Denmark, I landed at Kiel, where I was surprised at finding that everybody spoke German, and that the Danish tongue was almost unknown. I felt positively annoyed with this, in spite of a great respect for Germany and its people, for my short stay of a little over two months had created a sort of Scandinavian enthusiasm, an earnest wish to witness the consummation of that great Scandinavian confederation of Norway, Denmark, and Sweden, and the formation thereby of a powerful barrier against Russian encroachment on the

one hand, and Austrian court influences on the other. Such a confederation, united by a strong sense of common nationality, and common language, if in firm alliance with Britain, would have great influence on Europe; and an influence exercised by a people of so solid, calm, and pacific a character would greatly aid the spread of sound constitutional liberty and the general progress of mankind.

I feel strongly tempted to dwell upon this and kindred subjects in order to show how Englishmen are bound by a sort of national filial tie to Norway and Denmark—for undoubtedly the best blood of Britain has been derived from the shores of Scandinavia. No observant tourist can visit Norway (and the same applies to Denmark) without having continually forced upon his attention the moral and physical family likeness between these northern people and ourselves; for all our special English characteristics are even more visible in Norway than in England: all those peculiarities of physiognomy, of manner and character, by which an Englishman is distinguished from a Frenchman, and even from a German, are seen to be purely Scandinavian peculiarities. I often thought, when in the most wild and primitive parts of Norway, that they now represent, in everything but costume and the presence of guns and a few other modern inventions, very nearly the state of Old England in the days of Alfred; and that a practical knowledge of the physical and social condition of Norway at the present time must be of great value to the student of English history and the

progress of English civilization. But as another volume would be needed if I were to attempt a dissertation on this interesting subject, I must conclude; leaving the reader to picture for himself the rest of the journey from Kiel, by the railway that passes through the corn-fields and butter-yielding flats of Holstein to busy Hamburg, and then by sea to the giddying roar and whirl and rattle of still busier London.

APPENDIX.

EXPENSES of travelling, board, lodging, &c. from the time of leaving Hull to the return to London—two months and eleven days.

	£	s.	d.
Passage money (second class) from Hull to Christiania	3	10	0
Food and steward	0	10	0
Breakfast at Christiansand	0	2	0
	£4	2	0

	D.	M.	S.*
Admission to Klinkenberg	0	0	6
Seat in theatre at ditto	0	1	0
Orange at ditto	0	0	12
Map and vocabulary	0	5	0
Bill at Hôtel du Nord	0	16	0
Rail to Eidsvold (third class)	0	2	18
Supper, bed, and breakfast at Eidsvold	0	2	12
Fare by steamer on the Miosen Lake	0	3	20
Dinner on ditto, 18 sk.; ale, 10*d.*	0	1	4
Supper, bed, and breakfast at Hammer's Hotel, Lillehammer	0	2	12
Dinner at Mosshuus	0	0	12
Supper, bed, and breakfast at Holmen	0	1	12
Steamer to Elfstadt	0	1	12
Dinner at Hundorp	0	1	2

* Specie-dollars, marks, and skillings. A specie-dollar is equal to about 4*s.* 6*d.* English, a mark to about 10$\frac{3}{4}$*d.*, and a skilling rather less than one halfpenny. 24 skillings make 1 mark; 5 marks, 1 specie-dollar.

	D.	M.	S.
Supper, bed, and breakfast at Vik	0	1	12
Ditto at Laurgaard	0	0	12
Ditto at Dombaas	0	2	0
Dinner, bed, and breakfast at Jerkin	0	2	0
Dinner at Drivstuen	0	0	8
Supper, bed, and breakfast at Rise	0	1	0
Dinner at Stuen	0	0	8
Supper, bed, and breakfast at Bjerkager ...	0	1	6
Dinner at Hov	0	0	10
Bed and breakfast at Soknaes	0	1	12
Dinner at Leer	0	0	12
Supper, bed, and breakfast at Oust	0	1	12
Belle Vue Hotel, Trondhjem :			
Dinner and coffee	0	2	12
One bottle ale	0	0	20
Supper	0	1	12
Half-bottle Sauterne	0	1	12
Servants	0	0	12
Passage from Trondhjem to Hammerfest ...	15	1	8
Provisions on board	7	2	20
Landing and embarking	0	0	12
Breakfast at Hammerfest	0	1	12
Dinner and wine at ditto	0	3	3
Landing and embarking at Tromsö	0	0	18
Ale and breakfast at baker's shop at ditto ...	0	0	13
Passage from Hammerfest to Trondhjem ...	15	1	0
Provisions on board	5	1	4
Landing	0	0	6
Bill at Belle Vue, Trondhjem	1	3	0
Ferry, 2 ; dinner, 8	0	0	10
Supper, bed, and breakfast at Bye	0	1	8
Two bowls milk at Fandrem	0	0	4
Supper and bed at Langsaet	0	1	12
Breakfast at Garberg	0	0	7
Supper, bed, and breakfast at Quam	0	0	5
Dinner at Honstad	0	0	12
Boat and men	0	3	8
Tilsegelse	0	0	4
Supper, bed, and breakfast at Baekkan ...	0	2	0
Boat and tilsegelse	0	1	4
Milk	0	0	2
Supper, bed, and breakfast at Lonsaet	0	1	12

	D.	M.	S.
Boat and tilsegelse	0	0	16
Boat, man, and boy	0	0	20
Dinner, 8; milk, 2	0	0	10
Boat and men	0	1	4
Boat to Veblungsnaesset	0	2	0
Dinner at ditto	0	0	8
Supper, bed, and breakfast at Ormein	0	1	0
Ditto ditto at Molmen	0	1	12
Ditto ditto at Hoset	0	1	0
Bed and breakfast at Skeaker	0	2	0
Supper, bed, and breakfast at Mork	0	1	12
Ditto ditto at Mork Saeter ...	0	1	0
Ditto ditto at Mjelvior	0	1	0
Bill at Rønnei (two days)	2	0	0
Dinner at Sogndalsfjocren	0	1	2
Boatmen and tilsegelse	0	2	10
Supper, bed, and breakfast at Lunden	0	0	16
Men and boat to Gudvangen	1	2	3
Dinner at Gudvangen	0	1	0
Bill at Vossevangen	1	1	20
Boat	0	0	12
Boat to Vik	0	1	20
Boat across lake to Saebo and back	0	1	8
Guide to Voring Foss	0	0	6
Milk	0	0	6
Bill at Vik	0	4	0
Boat to Utne	0	4	0
Dinner at ditto	0	1	0
Supper, bed, and breakfast at Lofthuus ...	0	1	12
Boat to Odde	0	2	0
Supper, bed, and breakfast at ditto	0	3	0
Dinner at ditto	0	2	0
Mending boots	0	0	16
Supper, bed, and breakfast at Hildal	0	1	0
Man with wooden shoes	0	0	6
Supper, bed, breakfast, and ham and fladbröd, for journey, at Röldal	0	1	12
Milk at saeters	0	0	6
Supper, bed, and breakfast at Nordgaard ...	0	1	12
Milk	0	0	4
Supper, bed, and breakfast at Gaardsfiord ...	0	1	0
Milk	0	0	4

	D.	M.	S.
Supper, bed, and breakfast at Bospen	0	0	20
Milk, 4 ;* ferry, 4	0	0	8
Guide to the Marie Stige	0	0	4
Ditto across ditto	0	1	0
Supper, bed, and breakfast at Dale	0	2	6
Boat to Hildal	0	0	12
Ditto to Graver	0	3	0
Supper, bed, and breakfast at Lier	0	0	12
Dinner at Bolkesjo	0	1	4
Supper, bed, and breakfast at Moen	0	1	4
Dinner and ale at Hougsund	0	1	4
Ale	0	0	16
Supper, bed, and breakfast at Drammen ...	0	4	0
Carriole	0	2	6
Hôtel du Nord, Christiania	1	4	0
Steam to Kiel	6	0	8
Provisions on board	0	3	0
	86	1	11

	£	s.	d.
86 specie-dollars, 1 mark, 11 skillings, equal to	19	7	4
Add expenses from Hull to Christiania	4	2	0
Ditto from Kiel to London	2	0	0
Total expenses	£25	9	4

By examination of the above account, it will be seen that the whole expenses for board and lodging for the ten weeks amounted to rather less than 9*l*.

* The frequent repetition of milk hereabouts is explained by the fact that, milk being the most nutritious food obtainable, I dined on bowls of milk whenever I could get them. Fresh milk is abundant enough on the fjelds during the summer, as the cows are all at the saeters, but none is to be obtained at the farms below. In the above account each 2 skillings represents one bowl of milk, containing nearly a quart.

London: Printed by Smith, Elder & Co., Little Green Arbour Court, E.C.

00032894

Digitized with financial assistance from the
Government of Maharashtra
on 26 March, 2016